CHICAGO REGIONAL HOUSEHOLD TRAVEL INVENTORY

Pilot Study Report

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NuStats

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INTRODUCTION

The Chicago Regional Household Travel Inventory is a comprehensive study of the demographic and travel behavior characteristics of residents in the greater Chicago area. The study universe is defined as households residing in the Illinois counties of Cook, DuPage, Grundy, Kane, Kendall, Lake, McHenry, and Will. The project has two phases: Design and Data Collection. The design phase took place in the fall of 2006. The full data collection effort will take place January through October 2007.

The purpose of the design phase of the study was to identify (through research and primary data collection) the most appropriate design and methodological aspects that maximize the quality and validity of the inventory data for modeling purposes. The three main objectives of the design phase were: (1) to validate existing budgetary assumptions regarding data collection efforts anticipated for the full study (and establish new assumptions as necessary), (2) to ensure that the inventory design elements and methods provide for a data set that supports the development of a valid model, and (3) to vet the inventory design recommendations through a series of white papers, supported by both primary and secondary research, using a peer review panel of both topical and regional experts. This report documents the design, implementation, and results of a pilot test to inform objectives (1) and (2). The white papers (Objective 3) are assembled in a separate report.

The pilot study, which is the focus of this report, was conducted in September and October 2006. It served two important functions: (1) to objectively assess the effectiveness, efficiency, and appropriateness of all data collection instruments, materials, and procedures, and (2) to provide details that inform the development of the white papers. For this particular study, this includes evaluating the advance mailing, recruitment interview, travel logs, mailing procedures, reminder call, data retrieval interview, geocoding, and data processing procedures for three specific population subgroups in the greater Chicago area. The pilot also served to estimate the anticipated response rates (both at the unit and item levels) and sample performance for the full study. It included three specific activities: public outreach, passive recruitment, and data collection.

PUBLIC OUTREACH

The diversity of the greater Chicago area, combined with known extremes in terms of participation rates in prior surveys and the 2000 census, suggested that focused attention on the elements of the public outreach planned for this effort was warranted during the design phase of the study. This effort was guided by the Social Exchange Theory, which states that respondents weigh the costs (time, release of personal information) against the benefits when considering whether to participate in a survey. The costs can be calculated to some extent, using survey length and level of detail requested by the survey questions. But given that the purpose of this data is to develop an inventory to be used in travel demand models that forecast travel 20 years into the future, what is the benefit to the respondent? What details are critical to convey in order to balance the survey costs? The public outreach effort during the pilot was used to identify these benefits or "hooks" which will be used to elicit participation across the various respondent groups in the region during the full study.

The public outreach component of the pilot test consisted of the following activities:

1. CMAP External Affairs staff worked with local partners to identify key leaders in the region for the African American, Hispanic, and youth communities.

2. The partner agencies contacted these community leaders by phone and invited them (or their designees) to participate in community meetings about the survey effort. NuStats prepared a public information packet for the partner agencies to distribute to these leaders as they discussed participation at the community group meetings.

3. On August 23 and 24, 2006, a series of four community meetings were conducted in Chicago and surrounding areas in order to identify the benefits, "hooks" and design features that would maximize participation among constituents. Each meeting targeted a unique demographic group known to have under-participated in similar travel and activity surveys conducted in other regions. Those demographic groups included African Americans, predominantly Spanish speaking Hispanics, predominantly English speaking Hispanics and youth ages 18-24.

At these meetings, the project team (consisting of NuStats, MKC Consulting and staff from the Chicago Metropolitan Agency for Planning along with the appropriate community group partner) provided a brief introduction to the study, and distributed sample packets of respondent materials (including the advance letters, brochures and travel logs). Participants were asked to read and to examine the documents and comment on them, specifically replying to a series of targeted questions designed to elicit details necessary for the planned public outreach effort and the meeting goals. The participants were also asked to complete the travel logs as if the previous day was their assigned travel day (to help them understand the task that would be requested from their constituents). They were then queried on their perceived ease/difficulty in completing this task. Finally, the participants were asked for their input in how to market the survey, what the benefits are, and how to convey this to their friends and families. Findings from the meetings are discussed in more detail in the white paper on Maximizing Participation, where specific design recommendations are also made. A summary of the findings from these community group meetings include:

- ***Latinos.*** The Latino groups, particularly the predominant Spanish-speaking Latinos, exhibited the strongest sense of community among the three groups. From the onset of the meeting, at which time the Latinos were asked to identify what motivated them in their daily lives, to the discussion of the materials, to the conclusion of the meeting, references to the importance of community and family were ever present. In terms of design, issues of confidentiality and anonymity were at the forefront of the discussion. Participants clearly felt that all the materials should clearly and immediately bring these key points to light. Another important issue for this constituent group is making the connection between survey participation and increased community well being (market the survey as a means by which the individual can contribute to the whole). To increase Latino participation, both Spanish and English speaking Hispanics recommended holding "community survey days" where Latino community leaders recruit other Latinos to attend group sessions (much like the community meetings attended by these leaders) in order to learn about the survey and complete the survey on site. Many of the participants also volunteered their time and effort in setting up these events.

- ***African Americans.*** The African American community in south Chicago can be characterized by strong ties to family, and, simultaneously, being very independent and civic-minded. Meeting participants indicated that a key factor in determining the success of the inventory would be survey endorsement by civic organizations and civic leaders in the African American community. Of all groups with whom meetings were held, African Americans had the greatest understanding of what was being requested of them in terms of the survey task and how to properly complete the travel logs. Meeting participants stated that it was vitally important to highlight (in the survey materials) that the last time that the survey was conducted, African Americans were under-represented, and state, "this is your chance to make sure this does not happen again."

- ***Youth.*** Although non-response among youth (ages 18 to 24) is typically noted in travel surveys, little research has been done to identify the factors that might increase participation among this population subgroup. The youth meeting conducted to inform this study revealed a sub-section of the general population that is very eager to participate and genuinely concerned that their voices are not being heard. They perceive that the impact they have (as youth) on the transportation system is overlooked. This highly mobile group comprehended all survey materials and accurately assessed what was being requested of them via survey participation. The meeting discussion revealed that many of the core transportation issues faced by the youth are the same core issues faced by others. However, in many instances, lack of or limited access to a personal vehicle exaggerates the affect of these issues on youth. The discussions at this community group meeting suggest that the key to maximizing Youth participation will be the explanation of how the planning process works, and how the data we are requesting today will result in improved transportation infrastructure tomorrow, with an emphasis on the importance of youth participation.

PASSIVE RECRUITMENT TESTING

Most recent household travel surveys have employed random telephone samples, which means that non-telephone and cellular-only households are excluded from the sample. One approach for minimizing this coverage bias is to employ an address-based sample in lieu of the telephone-based sample. With an address-based sample, the location of the household is known, but there may or may not be a telephone number associated with each piece of sample. In order to determine whether (1) we can reach and secure participation from households where we have addresses but no telephone number, and (2) if there are differences in travel between these two respondent groups that warrants a passive recruitment effort, a small scale test was conducted as part of the pilot.

Specifically, 1,000 pieces of address-based sample were obtained. To each, a recruitment packet was mailed, which contained a cover letter outlining the survey, a study brochure, a household questionnaire (to obtain demographic details), and a postage-paid envelope to return the household questionnaire. In addition, in order to test whether a pre-paid incentive increases participation levels among this otherwise passive group, a $2 bill was included in one-half of these mailings. Respondents were provided the options of returning the survey by mail, fax (although it's a 2-sided survey), and Internet. A short survey of non-participants was also conducted, to glean insight into why so few households responded to the passive mailing. The evaluation of this passive mailing centered about five questions (the evaluation results are reported in the next section of this report):

1. *How many households participated?*
2. *How effective was the $2 bill in inducing participation?*
3. *Were we able to reach and secure participation from households where we had an address but no telephone number?*
4. *Were the participants from the passive sample statistically different in terms of demographics or travel patterns from survey participants that were recruited through the telephone-based sample?*
5. *Why did the non-participants in the passive sample elect not to return the household questionnaire?*

The general finding of the passive recruitment effort is that it is not recommended in its current form for the full study as a general mailing. The returns were marginal (5%) compared to the costs ($1.55 per survey). When the respondents open and reviewed the packet materials, the incentive did serve as

an inducement to participation, but the outside envelope was not arresting enough to encourage most to open the packet.

Those who did enter the survey through the passive recruitment effort were mainly households that were newer to the area and use Privacy Manager, meaning they would not likely be included in an RDD sample and if so, would not be answering their phones. In reviewing the actual travel reported by households that participated in the pilot, the difference in trip rates based on tenure in the region showed that those living in the region less than 2 years reported fewer trips. However, this was not statistically different from the level of trip-making reported by those living in the region for more than 2 years. Thus, the capture of newcomers to the region through this approach does not provide travel details different from what is captured through the active telephone recruitment.

PILOT DATA COLLECTION

For the actual pilot data collection effort, the data collection team attempted to recruit 300 households by telephone (active recruitment of RDD sample) to participate, but due to a higher-then-expected number of refusals, ended recruitment with 275 households agreeing to participate in the pilot. These households represented three different geographies, each with access to different aspects of the regional transportation infrastructure:

(1) Households living in Chicago's urban core, an area with high levels of transit access as well as dense living environments. **This was targeted to households in zip codes 60613 and 60640,** which were selected after reviewing the demographic characteristics for all zip codes in the urban core. These particular zip codes share census tracts that exhibit a good mix of incomes, dwelling type, and ethnicities, as well as a strong proportion of commuters who take transit to work. This group is important in confirming that the household travel survey materials capture sufficient transit segment details. In addition, response rates in areas with high population density tend to be lower (respondents know there are other households that could participate).

(2) Households in the Chicago suburbs - with good access to the central city via CTA, Metra, and Pace trains, but also good local transit service and destination options. **This was targeted to households in Downer's Grove.** Downer's Grove was selected again because it provided a strong mix of incomes, household types, and ethnicities in a region where transit service into the central city was strong, but alternative destinations are also viable. It was anticipated that this geographic group would exhibit transit usage as well (particularly commuter travel into downtown Chicago), but also automobile usage to destinations outside the central city. This group was important in order to determine participation levels by other suburban households in the region, and differences in respondent reaction to the materials by those who commute into the city vs. those that do not. It also allows for evaluation of the collection of address detail in a suburban environment, the reaction of households to the questions regarding children's travel, and other geographic differences that might impact data collection.

(3) Households in an outlying county. **This was targeted to households in Woodstock (McHenry County).** With an 8-county region, it is critical that the material design convey the importance of the study for all households in the region, not just those with strong linkages to the downtown and inner core Chicago. The selection of Woodstock for this group was done in order to focus on a city in the outlying area where alternative destinations for jobs, shopping, and other errands might exist (although we recognize that the Metra service availability may still result in some rail commuters in our pilot sample). What is most important for this group of households in an outlying county is that the materials "speak" to them in the same way that they do to households in the inner core area.

In order to capture the data required to support the development of the white papers, different questionnaire versions were employed in this effort.

- Recruitment: the budget assumed an average interview length of 20 minutes. However, the white paper authors were interested in obtaining detailed information about each respondent's job. To accommodate this, there were two recruitment versions, one with the detailed employment questions and one without. Combined, the overall recruitment length was 19 minutes, but one survey version averaged 16 minutes and the other 21 minutes. Households were randomly assigned to one survey or the other.

- Travel Details: Three approaches to obtaining travel details were employed, in order to understand the effect of more detailed questioning on response rates. Specifically, the pilot tested a one-day place based log (the base), a two-day place-based log, and a one-day activity-based log. Households were randomly assigned to a survey type, with the goal being an equal distribution of households across the three survey options.
- Retrieval: The retrieval interview was budgeted at an average interview length of 29 minutes and the actual survey averaged 28 minutes. There are two survey versions:

  i. Base: the base survey with no other questions. This is the foundation or control for testing the effects of obtaining the other details. It averaged 24 minutes.

  ii. Process Questions and Time Rounding. The more detailed activity-based and tour-based models could be enriched with more details regarding the activity choices that underlie the reported travel, and details from the respondent in terms of how the travel differs from "typical" travel. These questions were asked, in addition to the base questions. The longer version averaged 33 minutes.

Prior to the start of the pilot test, evaluation criteria were developed to allow for a complete assessment of instruments, procedures, and processes. The evaluation criteria for the pilot included:

1. **Sample Specification, Generation, and Performance**. All sample will be geocoded and locations mapped. All call outcomes will be monitored and reasons for refusals noted. The resultant data set will be compared to census data to identify areas of non-response. The following questions will be used to evaluate the sample:
   - How well did the sample "fit" within the study area boundaries?
   - What were the response rates?
   - How do the response rates compare with those of similar studies?
   - What were the reasons households refused to participate?
   - How well did the resultant data set match census data?

2. **Recruitment and Respondent Packet Mailing**. The households will be contacted to secure participation in the study. At that time, demographic information on all household members will be collected and used to prepare personalized travel logs for household members. Work and school addresses will be obtained for advance geocoding. The following questions will be used to evaluate the recruitment/respondent packet process:
   - How many calls resulted in contact with eligible households?
   - On average, how many call attempts were required to reach a household?
   - How many households agreed to participate in the study?
   - What was the average interview length?
   - What was the interviewer productivity?
   - How did the recruitment questionnaire perform, overall? Where can it be improved? Did the interviewers have to repeat any items? Did the respondents appear to be confused about the meaning of any items?
   - How did the recruitment instrument perform in terms of item non-response?
   - How many households responded to the passive mailing? Did those that did respond differ significantly from those that were recruited over the telephone?
   - How can training be improved?

3. **Reminder Calls and Retrieval**. The day prior to the assigned travel day(s), a reminder call will be placed to each household to confirm receipt of packet and answer last minute questions. The day following the travel day(s), retrieval of travel data will commence. The following questions will be used to evaluate the reminder and retrieval call process:
   - How many calls resulted in contact with eligible households during the reminder call?
   - How many households reported problems with receipt of their packets? What type of problems?
   - What types of questions were asked by respondents during the reminder call?
   - On average, how many call attempts were required to reach a household for retrieval?
   - What was the average interview length for retrieval?
   - What was the interviewer productivity for retrieval?
   - How did the retrieval instrument perform, overall? Where can it be improved? Did the interviewers have to repeat any items? Did the respondents appear to be confused about the meaning of any items?
   - How did the retrieval instrument perform in terms of item non-response?
   - What were the completion rates across the 3 survey types?
   - What were the completion rates for those that responded to the passive mailing vs. those that were recruited by telephone?
   - How can training be improved?

4. **Quality Assurance**. The collected data will be processed and subjected to both manual and electronic checks. The following questions will be used to evaluate the quality assurance phase:
   - Were 100% of retrieved households delivered?
   - Did the electronic edit check program work as programmed? If not, what requires correction?
   - Did all questions and responses on all survey instruments conform to skip patterns?
   - How can the quality assurance task be improved?

5. **Project Staff Debriefs**. All project staff will evaluate the pilot test as it is conducted and document observations for use in this evaluation. In addition, all project staff will be debriefed fully on the pilot test experience.

6. **Respondent Debriefs**. At the conclusion of the retrieval interview, we will ask the main respondent for each household the following questions:
   - Did you use your travel log to record your travel?
   - If so, did you use it during the course of the travel day or after you had made all your trips for the day?
   - What influenced you to participate in the study? Was it the advance letter and brochure, the details we provided at the start of the recruitment interview, a general concern about transportation in the region, or something else?
   - Having completed the study, do you feel that we adequately explained what you would need to do as part of the study? (probing for details and what they felt should be done different/better)
   - What information do you think is most important to convey to other respondents as we contact them about the study? (probe for advance mailing as well as actual survey details).
   - How is the best way to get information out to people in your community about the survey? (probe for newspaper- which one? TV – which stations?)

- Because the travel times are so important to us, we'd like to know how you and your household recorded your times - did you always look at the same time source (watch or the car clock) or did you sit down at the end of the day and estimate times? Did you record times or just the fact that the trip took 5 min?

The answers to these questions are provided in the next section of this report and conclusions are in the third section. The appendices include the recruitment questionnaire, frequencies of responses to that instrument, the retrieval questionnaires, and responses to those instruments as well. The respondent materials (brochure and travel logs) are available at www.chicagoareaplanning.org/travelsurvey.

PILOT EVALUATION

The purpose of this section is to summarize the methods used to conduct the household travel survey pilot test. Each section contains a description of a specific procedure used in the pilot test as well as answers to the evaluation questions. The sections follow the order in which the procedures were implemented in the pilot test. Recommendations for changes in the study materials and procedures are presented in the final section of this report.

SAMPLE SPECIFICATION, GENERATION, AND PERFORMANCE

To meet the goals of the full study, the sampling plan will be designed to translate the modeling goals into a random sample of regional households that will be contacted for inclusion in the study. For the pilot, however, a separate sampling scheme was used, one that focused on reaching households in three specific geographies: Chicago (60613 and 60640 zip codes), Downer's Grove, and Woodstock. This section of the report focuses on the performance of the pilot sample in order to determine how households in different areas of the region might respond to requests for participation in the full study.

For the pilot, a total of 3,713 telephone numbers from an RDD sampling frame were generated for use in this portion of the pilot test (the passive sample as discussed in the previous section was a separate effort and not used in the active recruitment portion of the pilot). Fielding of this sample resulted in the recruitment of 275 households to participate in the study and the collection of travel data from 150 households. In addition to knowing the total number of participating households, it is important to understand the level of effort required to attract, retain, and obtain travel data from these households. The response rate calculation is the best measure of this level of effort.

The overall response rate is the product of the recruitment and retrieval response rates. As shown in Table E-1, the overall recruitment rate for the pilot study was 17%, and the retrieval rate was 55%. This means the overall response rate for the pilot test was 9%. In other words, 9% of all eligible households that were contacted during recruitment ultimately provided trip data. This rate is much lower than anticipated, but reflective of the short window of recruitment (if we had continued recruitment longer, the sample would have yielded more recruits). Table E-1 also shows response rates by geography, whether the short or long recruitment script was administered, and by travel group (one-day place-based, two-day place-based, or one-day activity).

The formula used for the response rate calculation takes into account sample attempted but for which contact was never made. A second indicator, which provides a much stronger sense of respondent reaction to the survey, is the ratio of recruited households to all eligible households contacted or the "participation rate." This rate is 53%. So 53% of all households contacted that were eligible to participate agreed to participate, and of them, 55% actually followed through. Using this method of measuring response suggests that respondent reaction to the survey was stronger than indicated in the traditional calculation of recruitment rates (which is biased against studies with short time frames such as this pilot). However, the retrieval rate is lower then experienced in most recent studies.

Sixteen respondents returned their travel logs after the surveying period had ended. If those 16 surveys were included in the retrieval rate calculation, it would bring the level of participation up to 60%, which is more reasonable for an area of this size. In addition, this pilot tested several forms of

surveys (as will be discussed later in this section). This clearly had an impact on participation rates as well.

TABLE E-1: RESPONSE AND PARTICIPATION RATES

	Recruitment Rate	Retrieval Rate	Overall Response Rate	Recruit Rate (Participation)	Retrieval Rate	Overall Participation Rate
Overall	17.1%	54.5%	9.3%	52.7%	54.5%	28.7%
Chicago	24.1%	44.4%	10.7%	64.3%	44.4%	28.5%
Downer's Grove	14.7%	58.2%	25.3%	51.9%	58.2%	30.2%
Woodstock	13.7%	61.3%	8.4%	44.0%	61.3%	27.0%
Short Recruit and Retrieve	17.9%	52.7%	9.4%	55.0%	52.7%	29.0%
Long Recruit and Retrieve	16.3%	48.1%	7.8%	50.2%	48.1%	24.1%
1-day Place		56.4%			56.4%	
2-day Place		51.2%			51.2%	
1-day Activity		49.4%			49.4%	

The following are specific answers to the pilot test evaluation questions. Overall, the sample performed well. Careful sample management will be required during the study to make sure that sample is not dialed too quickly at the start of the project, as this will lead to the need for more sample that is not dialed as fully towards the conclusion of the data collection effort -- which also suppresses response rates.

a) ***How well did the sample "fit" within the study area boundaries?*** The RDD sample included two types of telephone numbers: "listed" and "unlisted." The "listed" sample included those telephone numbers for which name and address was known prior to the initial recruitment contact. The "unlisted" sample was comprised of all telephone numbers for which name and/or complete address were not known prior to the start of the project (for example, some directory listings provide a name, but no address information). "Unlisted" sample also included the traditional "unlisted" sample, commonly recognized as those numbers not listed in the telephone directory.

   The sample was ordered based on the probability that the residential telephone exchanges were associated with the three target geographies. The evaluation question at issue here is that of accuracy. Accuracy is important because we want to focus our recruitment efforts on households we know live within the study area. If the sample accuracy rate is too low, that means we spend too many interviewer hours talking with ineligible households (i.e., those that live outside of the study area).

   We measure accuracy by first assuming that the sample specifications and generation steps yielded a high proportion of sample within the study area. We then review the call outcomes to determine how many contacted households fell within the study area. In the case of this pilot, of the 3,713 pieces of sample, we made contact with 526 households. Of those, we recruited 275. All households were found to reside within the study area. We also reached 39 commercial locations, even though we had requested residential only sample. This is common with RDD sample and the proportion of non-residential numbers (39/3713 or 1%) is much lower then that typically encountered.

   In sum, the sample "fit" the area fairly well and while we will monitor accuracy during the full study, we do not anticipate it to cause significant issues.

b) ***What were the response rates?*** As described earlier in this section, the overall response rate was 9% using the traditional calculation (which suppresses the response rate in studies that are of short duration such as this pilot). This was a result of a 16% recruitment rate and a 55%

completion rate. If we consider only recruitment of households actually contacted (i.e., we exclude numbers that were still "working" and could have yielded additional recruits), the participation rate would be 29%, which is much more in range with our expectations.

Response and participation rates were highest in Downer's Grove and lowest in Woodstock. The low response rates in Woodstock may be indicative of respondents feeling that they don't travel to Chicago or they don't use public transit, so the survey doesn't pertain to them. This suggests that the materials for Woodstock and other outlying counties (like Grundy) may need different letters and brochures (we recommend tailoring the information pieces but maintaining the same travel logs).

From the perspective of short and long surveys, the response and participation rates were higher for those with the shorter interviews. The difference is more difficult to detect in the response rates, but the participation rates for the short interviews were 5% higher than those of the long interviews. This was expected due to the higher respondent burden.

Finally, the impact of the travel log type on retrieval rates show the highest retrieval rates for the 1-day place-based logs, and the lowest rates for the 1-day day activity log. The white paper on the data items necessary for the travel behavior inventory will discuss the implications of the differing levels of data and detail with regards to modeling options in future years.

c) ***How do the response rates compare with those of comparable studies?*** As indicated above, the response rates achieved during the pilot were much lower than those experienced in recent household travel surveys. We believe that two factors contributed to this lower response rate. First, the pilot was conducted over a short time frame and the sample was not fully exhausted. Thus, the number of recruits achieved from the sample (275) does not reflect the full yield had the same sample been dialed for a longer time period. Second, this pilot tested three methods for obtaining travel data: a one-day place-based log, a two-day place-based log, and a one-day activity-based log.

d) ***For what reasons do households refuse to participate?*** The interviewers encountered a total of 1,638 households that refused to participate. Refusals were tracked in three categories: those that hung up during the introduction (42%), those who were vehement about their decision not to participate (15%), and those who politely refused with reasons that the interviewer felt could be overcome if the household were called again (43%). The level of refusals, in general, was higher than that encountered in recent studies and varied by geography. The proportion of hang-ups was highest in Chicago (41%), and lowest in Downer's Grove (39%). Hard (vehement) refusals were highest in Woodstock (16%) and lowest in Chicago (13%). In terms of respondent cooperation, the interviewers felt that recruitment was harder than in other regions of the US, as respondents required a lot of explanations before agreeing to participate.

e) How well did the resultant data set match census data? Given that the sample was randomly generated for the three geographic areas, the expectation was that the households in the pilot data set would be representative of the study area population. Differences between survey participants and census might suggest non-response bias. The non-response bias impacts the travel behavior inventory only if the travel characteristics of those missing from the inventory are statistically different from those that participated. Key demographic variables from the survey were compared to those for the three zip codes. As shown in Table E-2, the survey respondents were predominantly non-minority, tending towards the higher income ranges and older age brackets as compared to census.

TABLE E-2: SURVEY DATA AS COMPARED TO CENSUS DATA

Variables	Survey Data %	Census Data %	Difference %
Household Size			
1	43.3%	44.7%	-1.4%
2	35.3%	29.7%	+5.6%
3	8.7%	10.8%	-2.1%
4+	12.7%	14.7%	-2.0%
Household Vehicles			
0	14.7%	28.4%	-13.7%
1	38.0%	43.3%	-5.3%
2	39.3%	22.3%	+17.0%
3+	8.0%	5.9%	+2.14%
Household Income			
< $25k	9.8%	27.3%	-17.5%
$25 - < $50k	30.1%	27.5%	+2.6%
$50k- < $75k	23.3%	18.9%	+4.4%
$75k +	36.8%	26.4%	+10.4%
Residence Type			
Single family	54.0%	21.0%	+33.0%
All other types	46.0%	79.0%	-33.0%
Respondent Age			
<20	19.7%	19.9%	-0.2%
20 – 24	1.7%	7.7%	-6.0%
25 – 54	41.4%	53.7%	-12.3%
55 – 64	21.4%	7.3%	+14.1%
65+	15.9%	11.4%	+4.5%
Respondent Ethnicity			
White	93.3%	72.0%	+21.3%
Black/African American	2.7%	10.8%	-8.1%
Other	4.0%	17.3%	-13.3%

Census Data obtained from American FactFinder for the three pilot geographies then combined for display purposes in Table E-2.

RECRUITMENT CALL AND RESPONDENT PACKET MAILING

The purpose of the recruitment call was to introduce the respondent to the study and, if the respondent agreed to participate, obtain demographics important to the study goals. All pilot recruitment activities took place September 8 through September 24, with packets mailed from September 11th through September 25th. Two-hundred seventy-five households agreed to participate in the study. Respondent packets were mailed to all. The following is an evaluation of the recruitment/respondent packet process:

a) ***How many calls resulted in contact with eligible households?*** Out of the 3,715 telephone numbers selected for use in the pilot test, contact was made with 526 eligible households or 14%. Eighteen percent of the numbers dialed were ineligible (disconnects, fax, or non-household numbers) and contact could not be made with the remaining 68% during the short time in which pilot recruitment occurred. The proportion of ineligible numbers is actually lower than the average of 40 to 45% experienced on other studies, but the proportion of eligibility unknown numbers is higher, reflecting sample that was released later in the recruitment process to counteract lost sample due to refusals, but which was not fully dialed.

b) ***On average, how many call attempts were required to reach a household?*** On average, 4.04 call attempts were made to each telephone number. It took an average of 3.18 call attempts to make contact with households that ultimately were recruited, while all other telephone numbers were dialed 4.11 times on average. In the full study, we will attempt each number up to 6 times.

c) ***How many households agreed to participate in the study?*** Two-hundred seventy-five households agreed to participate in the survey. This was short of our goal for the pilot of 300, due largely to the higher proportion of refusals encountered.

d) What was the average interview length? The average interview length was 19 minutes. The "short" survey version averaged 16 minutes and the "long" was 21 minutes, on average. Table E-3 shows the average interview length by household size.

TABLE E-3: RECRUITMENT INTERVIEW LENGTH BY HH SIZE

Household Size	Short Interview	Long Interview	Overall
1	12.53 min	17.42 min	15.01 min
2	18.19 min	21.45 min	19.55 min
3	23.43 min	29.33 min	26.16 min
4+	20.25 min	23.27 min	22.00 min
Total	16.55 min	20.54 min	18.47 min

e) What was the interviewer productivity? Interviewers averaged 0.64 completed surveys for every hour of dialing effort in the CATI system. This equates to one complete recruitment interview every 1.56 hours.

f) How did the recruitment instruments perform, overall? Where can they be improved? Interviewers reported that the respondents were uncomfortable answering questions about call screening technology and how often they screen calls. In addition, the questions about interruptions in telephone service (long used as a proxy for non-telephone households) did not yield anyone with interrupted service of more than two weeks, suggesting that these questions should be removed. Interviewers clearly felt that the long recruitment interview was more difficult to administer, although most respondents did take the time to answer all the questions once they got started with the interview. Finally, after the first two nights of interviewing, the

introduction was modified to be more direct. The revised (shorter) introduction was felt to be much more effective in securing participation from households.

g) How did the recruitment instrument perform in terms of item non-response? Twenty variables had item non-response:

Vehicle data: 4 vehicles were missing vehicle year, and 3 vehicles were missing vehicle model.

Household Data: 2 households refused type of internet, 17 households refused income (6%)

Person Data: 2 refused age, 1 refused race and Hispanic origin, 1 refused to indicate whether the household member with a disability had a disabled license plate, 1 refused driver's license, 1 refused employment status and volunteer status, 4 refused work status, 2 refused to comment on the persons typical use of bike and transit, 3 refused work location, 3 refused work mode, 2 refused to indicate whether a personal vehicle was needed while at work, 2 refused telework status, 3 refused to comment on work schedule, 2 refused prior work location, 4 refused educational attainment, 1 refused student status, 2 didn't know mode to school.

h) How many households responded to the passive mailing? Did those that did respond differ significantly from those that were recruited over the telephone? The passive recruitment effort was evaluated based on five questions:

1. How many households participated?

Of the 1,000 recruitment packets mailed, 77 were returned as non-deliverable, reducing the base for this analysis to 923 pieces of address-based sample. Of the 923 pieces of address-based sample, 53 household questionnaires were completed and returned, for a 6% response rate. This level of participation is lower then what has been experienced in other studies (10% or greater).

2. How effective was the $2 bill in inducing participation?

For these 53 households that returned the household questionnaire, 44 (83%) had been provided a $2 incentive in the recruitment packet. Only 9 households that did not receive an incentive returned the questionnaire. Thus it can be concluded that return rates were higher for households that had been provided an incentive as compared to those that had not been provided an incentive. However, both groups exhibited extremely low response rates overall. Given that the cost of mailing the passive recruitment packets was approximately $1.55 per mailing (printing, postage, and labor to prepare the mailouts and process the returns), this cost should be measured against the true value of the passive test: did we enlist participation from household members that we ordinarily would not have? This is answered in questions 3 and 4.

3. Were we able to reach and secure participation from households where we had an address but no telephone number?

For these 53 households that returned the household questionnaire, 20 (37%) had no telephone numbers in the address-based sample file (meaning that we would not have contacted them for recruitment). Thus for the majority, we would have been able to contact them by telephone. So the limited returns provided only a small proportion of households without telephone numbers.

4. Were the participants from the passive sample statistically different in terms of demographics or travel patterns from survey participants that were recruited through the telephone-based sample?

The greater question (that would indicate the passive mailing is worth the cost) is whether households participated in the study through the passive mailing were different from those who participated by telephone contact. Table E-4 shows the demographic differences between the

passive sample respondents who returned the household questionnaire and sample respondents from the active sample. As indicated therein, households were of the same size, although those in the passive sample owned slightly more vehicles than those in the RDD sample. The greatest differences were with regards to tenure and call screening behavior. The passive sample included more households that were newer to the region as compared to the RDD sample and were more likely to use Privacy Manager to screen their calls. Finally, the passive sample reported travel behavior of transit and non-motorized travel mirrored that of the RDD households.

Thus the main differences between the passive sampled households that completed a household questionnaire and the RDD households that provided their details over the phone is that the passive households were newer to the region and more likely to use Privacy Manager to screen their calls. If the trip rates of those households newer to the region differ statistically from those who have lived in the region for a longer period, then the passive approach should be considered. Otherwise, it adds little value to the project.

TABLE E-4: DIFFERENCES IN PASSIVE AND RDD SAMPLE HOUSEHOLDS

Variables	Passive HH (n=53)	RDD HH (n=150)
	%	%
Household Size		
1	43.4%	43.3%
2	34.0%	35.3%
3	9.4%	8.7%
4+	13.2%	12.7%
Household Vehicles		
0	5.7%	14.7%
1	47.2%	38.0%
2	32.1%	39.3%
3+	15.0%	8.0%
Residence Type		
Single family - detached	41.5%	54.0%
Single family - attached	11.3%	7.3%
Apartment/Condo	43.4%	38.7%
All other types	3.8%	0.0%
Tenure in this Location		
< 1 year	11.3%	6.0%
At least 1 but less than 2 years	15.1%	5.0%
At least 2 but less than 5 years	35.8%	18.0%
At least 5 but less than 10 years	3.8%	22.0%
10 years or more	34.0%	48.7%
Call Screening*		
Answering Machine	2.85	2.88
Caller ID	1.79	3.72
Privacy Manager	3.29	2.39
Ride bus or train at least once a week		
Yes	37.7%	38.0%
No	62.3%	62.0%
Walk or bike to work or school		
Yes	18.9%	18.0%
No	81.1%	82.0%

*Mean reflects a scale of 1 to 5, with 1 being never and 5 being always use to screen calls.

5. *Why did the non-participants in the passive sample elect not to return the household questionnaire?*

   A debrief of non-participants that were mailed the passive recruitment packet gives us valuable insights on the impact of this survey on the participation rates of the respondents. This debrief was conducted with 36 of the passive sample households where a telephone number was available in addition to the household address.

- Only 28% of the respondents could recall receiving a package about the survey. Furthermore, 40% of these respondents who could recollect receiving a package could not remember the contents of the package. Interestingly, the inclusion of an incentive did not help with recall of the package. As shown in Table E-5, only 6 of the 36 respondents debriefed had both received an incentive and recalled the packet. As indicated earlier, most of those that had received the passive mailing and returned their household questionnaire had received an incentive. But given that most apparently did not even look at the contents of the mailing, if this approach is to be used in the full study, the outside packaging should be reformatted to be more striking and eye catching.

TABLE E-5: PASSIVE HOUSEHOLDS RECALL OF PACKET RECEIPT

Recalled Packet	Incentive (n=20)	No Incentive (n=16)	Total (n=36)
Yes	6	4	10
No	14	12	26
Total	20	16	36

- More than half of the respondents who could recall receiving a package had similar demographic characteristics, primarily, they belonged to single-member households who ride the bus at least once a week, and walk or bike to school once a week; owned zero or one vehicle; and have been living more than 5 years at their current location. This clearly indicates that the respondents who use transit and have one or no vehicles available to them remembered the package.
- Finally, 39% of the respondents stated that they would be interested in participating in a future survey if we were to call them. Those who would not participate largely cited that they didn't travel much or didn't use public transportation and thus the survey didn't pertain to them.

In sum, the passive recruitment effort is not recommended in its current form for the full study as a general mailing. The returns were marginal (5%) compared to the costs ($1.55 per survey). When the respondents open and reviewed the packet materials, the incentive did serve as an inducement to participation, but the outside envelope was not arresting enough to encourage most to open the packet.

Those who did enter the survey through the passive recruitment effort were mainly households that were newer to the area and use Privacy Manager, meaning they would not likely be included in an RDD sample and if so, would not be answering their phones. In reviewing the actual travel reported by households that participated in the pilot, the difference in trip rates based on tenure in the region showed that those living in the region less than 2 years reported fewer trips. However, this was not statistically different from the level of trip-making reported by those living in the region for more than 2 years. Thus, the capture of newcomers to the region through this approach does not provide travel details different from what is captured through the active telephone recruitment.

i) ***How can training be improved?*** Comments and feedback from interviewers indicated that recruitment training sufficiently prepared them for the recruitment. Most comments focused on the retrieval training and these are noted in the next section.

REMINDER CALLS AND RETRIEVAL

A reminder call was placed to each of the recruited households the day prior to their assigned travel day. Travel days were assigned from September 20th to September 30th. The purpose of the reminder call was twofold: to confirm receipt of packet and to answer last minute questions. Data retrieval began the day following the travel day or at the appointed date and time. The following questions were used to evaluate the reminder and retrieval call process:

a) ***How many calls resulted in contact with eligible households during the reminder call?*** Fifty-one percent of reminder attempts resulted in a successful contact and reminder. This is higher than usually encountered (typically, we reach one-third of the households, leave messages for another third, and have no contact with the last third). It is reflective of updated sample management techniques available with upgraded CATI software, which "shares" recruitment sample details directly with the retrieval program.

b) ***How many households had problems with receipt of their packets? What type of problems?*** Two households reported receiving the wrong type of travel log. They should have received activity logs but instead received 48-hour logs.

c) ***What types of questions were asked during the reminder call?*** A few respondents requested clarification on what constituted an activity. A few others requested clarification on what to record for what length of time.

d) ***On average, how many call attempts were required to reach a household for retrieval?*** On average, it took 8.5 call attempts to reach a household. Households considered as "completes" were contacted 6.2 times, on average. Those that did not complete the study were contacted 10.9 times, on average. This is within the expected range in terms of level of effort to reach households for retrieval.

e) ***What was the average interview length for retrieval?*** The average retrieval interview lasted 27.7 minutes. The long interviews averaged 31.1 minutes, while the short retrieval interviews lasted 24.5 minutes. While the difference between the long and short interviews averaged 7 minutes, the impact of the long interview on respondent burden can be seen in the difference in interview length for the large households: 32 minutes for a short interview vs. 47 minutes for a long interview (15 minute difference).

TABLE E-6: RETRIEVAL INTERVIEW LENGTH BY HH SIZE

Household Size	Short Interview	Long Interview	Overall
1	18.65 min	22.97 min	20.80 min
2	25.79 min	32.38 min	28.56 min
3	38.29 min	39.17 min	38.69 min
4+	31.57 min	47.36 min	41.22 min
Total	24.53 min	31.13 min	27.71 min

f) ***What was the interviewer productivity for retrieval?*** In the place-based retrieval program, interviewers completed 106 full retrieval interviews in 142 hours of logged-in time for an average of 0.75 completes per hour or 1.34 hours per complete. In the activity-based program, interviewers completed 40 full retrieval interviews in 64.7 hours an average of 0.62 completes per hour or 1.62 hours per complete.

g) ***How did the retrieval instrument perform, overall? Where can it be improved?*** Respondents were frustrated with the activity-based survey and the need to record all their activity details, especially those unrelated to travel. Across all survey types, respondents found the questions regarding time precision (if time was reported as exactly on the hour, was it a little before or after) and location of place in relation to home and work to be annoying and often not relevant. In addition, most addresses provided were cross-streets (which at the time of the pilot, the on-line geocoding tool was designed only for complete address geocoding). Finally, the transit sequencing was new, and required modification after the first night of interviewing.

h) ***How did the retrieval instrument perform in terms of item non-response?*** The retrieval questionnaires performed well. Non-response for each survey (place-based vs. activity-based) is noted below.

- **Place-based Retrieval** – 6 places couldn't be placed in relation to home and work, 13 different places couldn't be characterized in terms of frequency of visits, 14 places couldn't be coded in terms of whether this was a regular location to perform this activity, 7 places had "don't know" for typical modes to that place, 7 places refused mode, 1 place had "don't know" for where parked (proxy report) – that same place had no information for parking payment, 1 additional place didn't have parking payment information, 2 route numbers were unknown, for 4 places, respondents were unable to answer the access distance walked, fare payment type was unknown for 4 places, 1 egress location was unknown, and for 2 places, it was unknown if a car was available.
- **Activity-based Retrieval** - 4 activity locations couldn't be placed in relation to home and work, 4 different locations couldn't be characterized in terms of frequency of visits, 1 activity refused which household vehicle driven, 3 activities had "don't know" for where parked (proxy report) 1 activity didn't have parking payment information, route was unknown for 2 activities, for 6 activities, and 1 egress location was unknown.

i) ***What were the completion rates across the three surveys?*** Table E-7 shows the retrieval rates for the three survey types, and for both long and short surveys. As indicated in that table, the 1-day place-based survey had the highest retrieval rates (64% overall), the activity-based had the 2nd highest retrieval rates (49%), and the 2-day place-based had the lowest (48%). The interview length itself didn't impact the retrieval rates – in fact, the households with the 1-day place-based long interviews had the highest retrieval rates of 68%. Interview length did matter for the 2-day households, as to be expected.

TABLE E-7: DIFFERENCES IN RETRIEVAL RATES

	Short Interview	Long Interview	Overall
1-day Place - Recruit	56	47	103
1-day Place - Retrieved	34	32	66
1-day Place - Rate	60.7%	68.1%	64.1%
2-day Place-Recruit	47	40	87
2-day Place-Retrieve	24	18	42
2-day Place-Rate	51.1%	45.0%	48.3%
Activity-Recruit	43	42	85
Activity-Retrieve	20	22	42
Activity-Rate	46.5%	52.4%	49.4%

Incentives ($10 each) were provided to 68 households (35 2-day place-based and 33 activity-based households) in the respondent packets. Table E-8 shows the differences in retrieval rates for the households that received an incentive vs. those that did not. The incentive had little impact in retrieval rates for the 2-day place-based group. However, for the activity households, the retrieval rates for those that received the incentive were double that of the activity households that did not receive an incentive. This suggests that if the 2-day place-based approach is selected, a larger incentive is needed. But, if the activity approach is selected for the full study, the $10 incentive should be sufficient.

TABLE E-8: IMPACT OF INCENTIVE ON RETRIEVAL RATES

	Incentive	No Incentive	Overall
1-day Place - Recruit		103	103
1-day Place - Retrieved		66	66
1-day Place - Rate		64.1%	64.1%
2-day Place-Recruit	35	52	87
2-day Place-Retrieve	17	25	42
2-day Place-Rate	48.6%	48.1%	48.3%
Activity-Recruit	33	52	85
Activity-Retrieve	25	17	42
Activity-Rate	75.8%	32.7%	49.4%

j) What were the completion rates for those that responded to the passive mailing vs. those that were recruited by phone? No passive sample household questionnaires were received in time for inclusion in the retrieval portion of the pilot.

k) How can training be improved? Three specific areas have been identified for improvement by project staff and interviewers. First, the concept of a landmark in the Chicago region is perceived differently by respondents – when interviewers ask for landmark, they are asking for a nearby store or business. In the Chicago region, particularly the city of Chicago itself, "landmark" refers to historic landmarks such as the Water Tower. Second, interviewers need more training on the transit systems – how respondents use the transit system, how the respondents refer to bus stops and stations, and how prevalent bus stops are throughout the region. Finally, if the activity-based approach is selected, interviewers need more training on what is an activity and how this relates to transportation planning, so that they can better field questions from the respondents.

QUALITY ASSURANCE

The recruitment, travel and activity data were processed and assembled into delivery files. Data checks included both manual as well as electronic reviews of the data. As an additional measure, respondents were asked to return their travel logs. The contents of the travel logs were compared to the data obtained during the telephone retrieval interview. The following is an evaluation of the quality control process:

a) ***Were 100% of the retrieved households delivered?*** Yes, all retrieved households were delivered. This included 3 partial completes (where not all household members participated) as well as 147 fully completed households.

b) ***Did the electronic edit check program work as intended? If not, what requires correction?*** The edit check program for the place-based travel data worked appropriately. Given the time constraints of the pilot, the activity data were checked, but using a series of queries and visual reviews rather than via an electronic program. For the place-based data, the main issue (which could be addressed at this stage or with interviewer training and CATI re-programming) was the need to set an anchor for the 2nd day of travel (in the case of the 2-day place-based households). In addition, if a 2-day approach is used, the edit check will need to be modified to look for day 1/day 2 consistencies and completeness.

c) ***Did all questions and responses on all survey instruments conform to skip patterns?*** Yes.

d) ***How can the quality assurance task be improved?*** Again, the 3 different approaches to capture travel included many more challenges then are expected in the full study, when all surveys will be collected using one approach. The main updates planned for the full study are the integration of a transit checking (route/path validation) and speed checks for all trips reported, which will be instituted regardless of the survey approach.

PROJECT STAFF DEBRIEFS

After each stage of the pilot study was completed, the project team met and debriefed on individual and team performance, and commented on the instruments, manuals, and other project materials supplied for that stage. From these debriefs, the main lessons learned included:

- **General**: Testing the various methods for capturing travel (1-day, 2-day and activity) added challenges to the pilot test because the data could not all be treated within one system (it was almost like running three surveys in parallel). In addition, the activity survey required a separate method for processing and quality control checks as compared to the place-based approaches. For interviewers and field supervisor, having multiple approaches and CATI programs also proved challenging. We strongly recommend selecting only one approach (place-based or activity-based) for the full study rather than a mixed-approach. If the team and panel recommend multiple-approaches, we will internally set them up as three separate projects.
- **Transit Travel:** A new method for capturing transit trip details was implemented for the pilot test. The initial design required adjustments after the first night of interviewing, and subsequently seemed to flow better for both the interviewer and the respondents. Prior to implementing the full study with the chosen method for collecting trips, we plan to review the logic with project team members who live and work in the Chicago area and document the flow of the data in terms of processing the results (the CATI flow was based on number of transit vehicles used while processing was not). This is the area where interviewers felt they needed more training as well as in-field tools (note: the updated e-CATI software for on-line geocoding will have a transit

component for the full study, which will address some of the information needs the interviewers had).

- **Recruitment interview**: Interviewers have suggested, if the activity-based approach is employed, that the recruitment script be strengthened to explain the activity approach, as they feel it will help respondents understand the materials when they arrive (if the place-based approach is employed, no changes are necessary).

In general, staff felt they were adequately prepared and had the necessary tools and training to conduct the study.

RESPONDENT DEBRIEFS

In addition to discussing the project activities and results with project staff, the respondents were asked specific questions about their experience in the study. Comments and observations from this important pool of participants are summarized here.

a) Did they use their travel logs to record their travel? As indicated in Table E-9, 63% of respondents (typically the main respondent in each household) reported using their logs to record the necessary details. By geography, respondents in Downer's Grove were most likely to use their log, while those in Chicago were least likely. In terms of survey approach, respondents in the activity-based approach were least likely to use their logs, while the 1-day place-based respondents were most likely.

TABLE E-9: DEBRIEF DETAILS: USING LOGS

	Use Log	Didn't Use Log	Didn't Indicate	Total
Overall	63.3%	26.6%	10.2%	100%
Chicago	55.3%	34.2%	10.5%	100%
Downer's Grove	70.6%	23.5%	5.9%	100%
Woodstock	61.5%	23.1%	15.4%	100%
1-day Place	75.9%	20.4%	3.7%	100%
2-day Place	64.9%	21.6%	13.5%	100%
1-day Activity	43.2%	40.5%	16.2%	100%

b) For those respondents who used their travel logs, was the log used to record travel during the course of the day or at the end of the day (in retrospect?) Half of the respondents reported using their logs throughout the day and the other half indicated they filled it out at the end of the day. As indicated in Table E-10, respondents in Chicago were most likely to use the logs throughout the day, while those in Downer's Grove were most likely to complete them at the end of the day. In terms of travel groups, the 1-day place-based group was most likely to complete the logs as the day progressed, while the 2-day and activity respondents were more likely to fill them out at the end of the day.

TABLE E-10: DEBRIEF DETAILS: WHEN LOGS WERE COMPLETED

	Throughout Day	At End of Day	Total
Overall	50.6%	49.4%	100%
Chicago	66.7%	33.3%	100%
Downer's Grove	38.9%	61.1%	100%
Woodstock	54.2%	45.8%	100%
1-day Place	56.1%	43.9%	100%
2-day Place	45.8%	54.2%	100%
1-day Activity	43.8%	56.3%	100%

To recap log usage details, respondents from Chicago were least likely to report using their logs, but when they did, the logs were used throughout the day (which yields the highest quality data). Downer's Grove respondents were most likely to use their logs, but tended to complete them at the end of the day. The respondents assigned to the 1-day place-based group both were most likely to use their logs and most likely to do so throughout the day. Activity approach respondents were least likely to use their log, and even then, the majority completed it at the end of the travel day.

c) ***What influenced them to participate in the study?*** We asked respondents what influenced them to participate in the study. Almost half (47%) indicated it was a general concern about transportation, one-fourth (25%) indicated it was the recruitment call, and 14% cited the advance letter. Four percent wanted to help, 2% said it was the incentive, and 2% said someone else in the household committed them to doing it. The other reasons for doing the survey included "I'm nice," "You caught me off guard," and "It was a government study."

d) ***Having completed the study, did they feel that we adequately described what participation would entail?*** Most respondents (84%) felt that we had adequately explained the survey task. For those that did not feel they were adequately prepared, some felt that the recruitment interview didn't properly inform them about the details they would need to record (activity and 2-day approach), a few were confused about the codes and recording times (these were mainly 2-day respondents), and others simply weren't sure what to do when they first got the packet (but the information there helped them figure it out) (respondents from all approaches).

e) ***What information did they think was most important to convey to other respondents as we contact them about the study?*** Explaining the purpose of the study and what the data would be used for was the most common response, as was explaining how much time the survey would take (if not a 1-day place-based survey). Confidentiality was an important issue to the respondents, as was understanding what the results would be used for. The results were fairly consistent across respondent groups, both by geography as well as survey approach.

f) ***What is the best way to get information out to people in your community about the survey?*** Newspaper was the top recommendation, followed by the combined mail/phone approached used in the pilot. Other suggestions included news stories on TV and radio, as well as community group leaders.

g) ***How did they record their times?*** More than half the respondents indicated they used the time source throughout the day to note the times they were traveling or performing activities. And most respondents recorded the actual times. Combined with the details of log usage reported earlier, the general finding seems to be that those who use the logs do so in the prescribed manner (carrying it with them to record results throughout the day and using the same time source). This bodes well for the quality of the data.

CONCLUSIONS

The pilot test was designed as a "dress rehearsal" and allowed for the full evaluation of the survey procedures from sample generation to data file preparation. In addition, it provides detailed data for analysis as part of the white paper effort, designed to provide final recommendations for the desin of the inventory. Overall, the pilot test was successful in terms of the procedures and collection of necessary data. These conclusions focus on five main areas: sampling, outreach, approach, data, and budget.

1) **Sampling.** The pilot results raise several issues to be addressed in the white paper on sampling. These include (1) how or should the data from community meetings (non-probability samples) can be incorporated into the largely probability-based inventory, (2) how the participation and response rates resulting from the pilot might impact sample size and sample orders, (3) whether there is a need for the non-telephone imputation questions. The sampling plan itself (to be developed after the structure of the inventory is finalized, should present sample management strategies that balance the need for reasonable response rates vs. interviewer productivity and maintaining project schedule.

2) **Outreach.** The insights from the community group meetings provide important details for the design of the inventory, particularly the outreach effort but also the materials themselves. The white paper should address how outreach should be carried out on the project and what material design features should be considered based on participant input.

3) **Data.** A large focus of this pilot was to test the respondent reactions to the different approaches for obtaining travel data. Participation rates varied greatly by survey type, and in addition, respondent reaction to some of the probes was not positive. The challenge for this white paper is to prioritize the optional data elements tested in the long survey versions such that respondent burden can be balanced with inventory content. In addition, the most important recommendation to come from this white paper will be to recommend the survey approach (1-day place-based, 2-day place-based, or activity-based).

4) **Survey Modes.** The pilot findings speak perhaps most clearly to the identification of survey modes. In particular, the passive mailing yielded very little returns, and those that did participate from this mode didn't exhibit statistically different travel patterns from the data obtained from the RDD sample. In addition, the lower participation rates in Woodstock suggest the need to tailor the materials for the outlying counties to improve participation. The pilot debrief provides good insight into respondent usage of the survey materials, to help inform the recommendations from this paper. Finally, the white paper should identify who should receive incentives and in what amount.

5) **Budget.** Once the inventory design is finalized, the budget will need to be re-examined. In particular, the survey length is approximately what was originally budgeted but the response rates are much lower than anticipated. In addition, the pilot has provided solid statistics that can be used to incorporate the final survey approach.

The data results are contained in Appendices A and B to this report.

APPENDIX A: RECRUITMENT RESULTS

Chicago Travel & Activity Survey
Recruitment Interview – Pilot Results
N=275 HH

Screener Questions – asked of everyone

S3 And my records show that you live in [COUNTY] county. Is this correct?
S4 IF NO TO S3: In which county do you live?

County Breakdown	COOK	DUPAGE	MCHENRY	Total
N	97	98	80	275
&	35.27%	35.64%	29.09%	100.00%

S5 Does anyone in your household ride the bus or train at least once a week?

Transit Use	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	Total
	%	%	%	%
YES	82.47%	21.43%	15.19%	41.24%
NO	17.53%	78.57%	84.81%	58.76%
Total	100.00%	100.00%	100.00%	100.00%

DK/RF - (1) MCHENRY

S6 Does anyone in your household walk or bike to work or school at least once a week?

Non-motorized Travel	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	Total
	%	%	%	%
Yes	26.80%	18.37%	12.50%	19.64%
No	73.20%	81.63%	87.50%	80.36%
Total	100.00%	100.00%	100.00%	100.00%

V1 And how many motor vehicles are owned, leased, or available for regular use by the people who currently live in your household?

# Motor Vehicles	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	Total
	%	%	%	%
None	32.99%	3.06%	7.50%	14.91%
1	49.48%	27.55%	32.50%	36.73%
2	14.43%	54.08%	42.50%	36.73%
3	3.09%	14.29%	15.00%	10.55%
4	0.00%	1.02%	1.25%	0.73%
5	0.00%	0.00%	1.25%	0.36%
Total	100.00%	100.00%	100.00%	100.00%
Mean	0.88	1.83	1.74	1.47
Standard Error	0.08	0.08	0.10	0.06

H1. How many people, including yourself, live in your home?

Household Size				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	
	%	%	%	%
1	48.45%	27.55%	35.00%	37.09%
2	42.27%	38.78%	32.50%	38.18%
3	3.09%	12.24%	15.00%	9.82%
4	5.15%	15.31%	10.00%	10.18%
5	1.03%	5.10%	5.00%	3.64%
6	0.00%	1.02%	2.50%	1.09%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.68	2.35	2.25	2.08
Standard Error	0.09	0.12	0.15	0.07

H1a How many of those people depend on you or other household adults to assist them in their daily activities and travel?

# Dependents				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	
	%	%	%	%
0	78.0%	54.9%	63.5%	64.2%
1	10.0%	21.1%	11.5%	15.0%
2	10.0%	16.9%	15.4%	14.5%
3	2.0%	5.6%	1.9%	3.%
4	0.0%	1.4%	3.8%	1.7%
5	0.0%	0.0%	1.9%	0.6%
Total	100.00%	100.00%	100.00%	100.00%
Mean	0.36	0.77	2.63	1.21
Standard Error	0.11	0.12	1.90	0.57

S7 Do you or anyone in your household attend a college or university in the region at least one day a week?

Attend College				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	
	%	%	%	%
Yes	17.53%	13.27%	20.00%	16.73%
No	82.47%	86.73%	80.00%	83.27%
Total	100.00%	100.00%	100.00%	100.00%

VEHICLE ROSTER

	N=404
Vehicle Year	%
Up to 1994	12.66%
1995-1999	31.01%
2000	8.01%
2001	6.46%
2002	10.34%
2003	10.08%
2004	6.98%
2005	8.79%
2006	5.43%
2007	0.26%
Total	100.00%
Mean	2000
Standard Error	0.23

Missing - (17)

HOUSEHOLD ROSTER (PART 1)

H2 How many bicycles does your household own and use on a regular basis?

Number of Bicycles				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY: N=80	
	%	%	%	%
0	55.67%	55.10%	58.75%	56.36%
1	20.62%	13.27%	13.75%	16.00%
2	15.46%	21.43%	17.50%	18.18%
3	5.15%	6.12%	6.25%	5.82%
4	2.06%	4.08%	2.50%	2.91%
5	0.00%	0.00%	1.25%	0.36%
6	1.03%	0.00%	0.00%	0.36%
Total	100.00%	100.00%	100.00%	100.00%
Mean	0.81	0.91	0.84	0.85
Standard Error	0.12	0.12	0.02	0.07

H3 Which best describes your home?

Residency Type				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
1 family house detached from any other house (1)	9.28%	76.53%	66.25%	49.82%
1 family attached to one or more houses(duplex, townhouse) (2)	4.12%	3.06%	16.25%	7.27%
Building with 2 or more apartments (apartment/condo) (3)	85.57%	20.41%	17.50%	42.55%
Other, Specify	1.03%	0.00%	0.00%	0.36%
Total	100.00%	100.00%	100.00%	100.00%

H4 Is your home owned or rented?

Owner Status				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
Owned/Mortgaged (1)	55.67%	90.82%	80.00%	75.27%
Rented (2)	43.30%	8.16%	18.75%	23.64%
Other	1.03%	1.02%	1.25%	1.09%
Total	100.00%	100.00%	100.00%	100.00%

H5 How long have you lived at this location?

Length at current location				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
Less than 1 year (1)	13.40%	2.04%	3.75%	6.55%
At least 1 yr but less than 2 years (2)	10.31%	3.06%	5.00%	6.18%
At least 2 yrs but less than 5 years (3)	27.84%	13.27%	20.00%	20.36%
At least 5 yrs but less than 10 years (4)	22.68%	21.43%	21.25%	21.82%
10 or more years (5)	25.77%	60.20%	50.00%	45.09%
Total	100.00%	100.00%	100.00%	100.00%

H6 (If lived at current address less than 2 years) Where did you live before this?
H7 [LONG] And what type of house was that?

Residency Type				Total
	COOK; N=9	DUPAGE; N=2	MCHENRY; N=3	
	%	%	%	%
1 family house detached from any other house (1)	11.11%	100.00%	66.67%	35.71%
1 family attached to one or more houses(duplex, townhouse) (2)	11.11%	0.00%	0.00%	7.14%
Building with 2 or more apartments (apartment/condo) (3)	77.78%	0.00%	33.33%	57.14%
Total	100.00%	100.00%	100.00%	100.00%

H8 [LONG] And was that home owned or rented?

Owner Status				Total
	COOK; N=9	DUPAGE; N=2	MCHENRY; N=3	
	%e	%	%	%
Owned/Mortgaged (1)	0.00%	100.00%	33.30%	21.40%
Rented (2)	88.90%	0.00%	66.70%	71.40%
Other (3)	11.10%	0.00%	0.00%	7.10%
Total	100.00%	100.00%	100.00%	100.00%
Mean	2.56	1.00	1.67	1.77
Standard Error	0.56	0.00	0.33	0.12

H9 [LONG] Did you move from that home because of any of the following reasons?

Reasons for move		COOK; N=9	DUPAGE; N=2	MCHENRY; N=3	Total
		%	%	%	%
# persons in hhld increased	Yes	11.11%	0.00%	0.00%	7.14%
	No	88.89%	100.00%	100.00%	92.86%
	Total	100.00%	100.00%	100.00%	100.00%
# persons in hhld decreased	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%
# workers in hhld increased	Yes	11.11%	0.00%	0.00%	7.14%
	No	88.89%	100.00%	100.00%	92.86%
	Total	100.00%	100.00%	100.00%	100.00%
# workers in hhld decreased	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%
Workplace of current worker changed	Yes	11.11%	50.00%	0.00%	14.29%
	No	88.89%	50.00%	100.00%	85.71%
	Total	100.00%	100.00%	100.00%	100.00%
Ability to work from home	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%
# hhld vehicles increased	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%
# hhld vehicles decreased	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%
hhld income increased	Yes	11.11%	50.00%	33.33%	21.43%
	No	88.89%	50.00%	66.67%	78.57%
	Total	100.00%	100.00%	100.00%	100.00%
hhld income decreased	Yes	0.00%	0.00%	0.00%	0.00%
	No	100.00%	100.00%	100.00%	100.00%
	Total	100.00%	100.00%	100.00%	100.00%

H10 When you moved to this current home, what were the main reasons you chose this particular location?

Owner Status				Total
	COOK; N=74	DUPAGE; N=93	MCHENRY; N=73	
	%	%	%	%
Housing or rental price	52.63%	31.58%	33.33%	40.91%
The local schools	5.26%	21.05%	0.00%	11.36%
Location to job site	5.26%	15.79%	0.00%	9.09%
Location to school site	5.26%	0.00%	16.67%	4.55%
Location to shopping, entertainment, restaurants	15.79%	5.26%	16.67%	11.36%
Location to social, religious, civic, cultural, recreational	10.53%	0.00%	0.00%	4.55%
Access to transit	5.26%	10.53%	0.00%	6.82%

H11 [IF MORE THAN ONE FACTOR SELECTED IN H10] Of these, which was the most important in choosing this particular location?

Owner Status				Total
	COOK; N=19	DUPAGE; N=19	MCHENRY; N=6	
	%	%	%	%
Housing or rental price	52.63%	31.58%	33.33%	40.91%
The local schools	5.26%	21.05%	0.00%	11.36%
Location to job site	5.26%	15.79%	0.00%	9.09%
Location to school site	5.26%	0.00%	16.67%	4.55%
Location to shopping, entertainment, restaurants	15.79%	5.26%	16.67%	11.36%
Location to social, religious, civic, cultural, recreational	10.53%	0.00%	0.00%	4.55%
Access to transit	5.26%	10.53%	0.00%	6.82%
Closeness to friends or relatives	0.00%	15.79%	33.33%	11.36%
Total	100.00%	100.00%	100.00%	100.00%

H12 Since we are conducting this survey by telephone, I have some questions about the telephones in your household. How many cellular telephone numbers do members of your household have?

Number of Cell Phones				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
0	20.62%	13.40%	26.25%	19.64%
1	36.08%	32.99%	33.75%	34.18%
2	38.14%	34.02%	21.25%	31.64%
3	4.12%	12.37%	10.00%	8.73%
4	1.03%	7.22%	7.50%	5.09%
5	0.00%	1.03%	1.25%	0.73%
Total	100.00%	101.03%	100.00%	100.00%
Mean	1.29	1.70	1.43	1.48
Standard Error	0.09	0.11	0.14	0.07

H13 [IF H12>0: Not counting the cellular phones,] How many home telephone numbers does your household have? This includes only land-lines or those hard wired to your house but excludes cellular phones. THIS INCLUDES DIGITAL PHONE SERVICE

Number of Landline Phone Numbers				Total
	COOK; N=96	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
1	88.54%	83.67%	81.25%	84.67%
2	9.38%	11.22%	13.75%	11.31%
3	1.04%	5.10%	2.50%	2.92%
5	1.04%	0.00%	1.25%	0.73%
6	0.00%	0.00%	1.25%	0.36%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.16	1.21	1.30	1.22
Standard Error	0.05	0.05	0.09	0.04

*RF - (1) COOK

H14 [IF H13>1] How many of these hard-wired telephone numbers, if any, are dedicated to a FAX machine or modem?

Number of Dedicated Fax Lines				Total
	COOK; N=8	DUPAGE; N=9	MCHENRY; N=11	
	%	%	%	Percentage
1	100.00%	77.78%	100.00%	92.86%
2	0.00%	22.22%	0.00%	7.14%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.00	1.22	1.00	1.07
Standard Error	0.00	0.15	0.00	0.05

H15 In the past 12 months, have there been times, even for a few days, when you did not have phone service at your home?

Lack of Phone Service				Total
	COOK; N=95	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
Yes	16.84%	8.16%	11.25%	12.09%
No	83.16%	91.84%	88.75%	87.91%
Total	100.00%	100.00%	100.00%	100.00%

*(1) DK and (1) RF in COOK

H16 How long were you without a phone service?

Time Without Phone Service				Total
	COOK; N=16	DUPAGE; N=8	MCHENRY; N=9	
	%	%	%	%
Less than 2 weeks (1)	87.50%	100.00%	88.89%	90.91%
2 weeks to less than 1 month (2)	6.25%	0.00%	11.11%	6.06%
1 month to less than 3 months (3)	6.25%	0.00%	0.00%	3.03%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.19	1.00	1.11	1.12
Standard Error	0.14	0.00	0.11	0.07

H17 Do you have _____?

IF YES: How often do you use _____ to screen your calls when you are at home?

Telephone Features		COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	Total
		%	%	%	%
Answering Machine/Voice Mail system	YES	87.63%	90.82%	88.75%	89.09%
	NO	12.37%	9.18%	11.25%	10.91%
	Total	100.00%	100.00%	100.00%	100.00%
Call Bocking/Privacy Manager	YES	11.34%	13.27%	20.00%	14.55%
	NO	88.66%	86.73%	80.00%	85.45%
	Total	100.00%	100.00%	100.00%	100.00%
Caller ID	YES	57.73%	61.22%	56.25%	58.55%
	NO	42.27%	38.78%	43.75%	41.45%
	Total	100.00%	100.00%	100.00%	100.00%

Telephone Feature Use		COOK; N=85	DUPAGE; N=89	MCHENRY; N=71	Total
		%	%	%	%
Answering Machine/ Voice Mail system	ALWAYS (5)	21.18%	24.72%	15.49%	20.82%
	MOST TIMES (4)	15.29%	12.36%	16.90%	14.69%
	SOMETIMES (3)	25.88%	19.10%	25.35%	23.27%
	NOT MUCH (2)	14.12%	19.10%	16.90%	16.73%
	NEVER (1)	23.53%	24.72%	25.35%	24.49%
	Total	100.00%	100.00%	100.00%	100.00%
	Mean	2.96	2.93	2.80	2.91
	Standard Error	0.16	0.16	0.17	0.09
		COOK; N=11	DUPAGE; N=13	MCHENRY; N=16	
Call Bocking/ Privacy Manager	ALWAYS (5)	18.18%	38.46%	18.75%	25.00%
	MOST TIMES (4)	0.00%	7.69%	6.25%	5.00%
	SOMETIMES (3)	18.18%	7.69%	25.00%	17.50%
	NOT MUCH (2)	36.36%	15.38%	18.75%	22.50%
	NEVER (1)	27.27%	30.77%	31.25%	30.00%
	Total	100.00%	100.00%	100.00%	100.00%
	Mean	2.45	3.08	2.63	2.73
	Standard Error	0.43	0.50	0.38	0.25
		COOK; N=56	DUPAGE; N=60	MCHENRY; N=45	
Caller ID	ALWAYS (5)	50.00%	48.33%	37.78%	45.96%
	MOST TIMES (4)	16.07%	5.00%	22.22%	13.66%
	SOMETIMES (3)	19.64%	25.00%	17.78%	21.12%
	NOT MUCH (2)	7.14%	13.33%	13.33%	11.18%
	NEVER (1)	7.14%	8.33%	8.89%	8.07%
	Total	100.00%	100.00%	100.00%	100.00%
	Mean	3.95	3.72	3.67	3.78
	Standard Error	0.17	0.18	0.20	0.11

H18 Do members of your household have any type of internet access? [IF YES] Where?

Type of internet access				Total
	COOK; N=96	DUPAGE; N=97	MCHENRY; N=80	
	%	%	%	%
No Internet Access	14.43%	12.24%	21.25%	15.64%
Home	91.57%	98.84%	92.06%	94.40%
Someone's Work	48.19%	39.53%	39.68%	42.67%
Someone's School	18.07%	18.60%	12.70%	16.81%
Public Library	7.23%	5.81%	11.11%	7.76%
Other	3.61%	1.16%	1.59%	2.16%

*DK/RF - (1) COOK

H19 [IF H18=HOME] What type of internet access do you have at home?

Type of internet connection				Total
	COOK; N=76	DUPAGE; N=85	MCHENRY; N=58	
	%	%	%	%
Dial up/Modem (1)	19.74%	27.06%	30.91%	25.46%
High Speed/DSL/Cable Modem/Satellite (2)	78.95%	71.76%	69.09%	73.61%
Other (Specify) (3)	1.32%	1.18%	0.00%	0.93%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.87	1.79	1.69	1.74
Standard Error	0.08	0.08	0.06	0.03

*DK/RF - (3) MCHENRY

H20 And to ensure your household properly represents others in the region, can you tell me if your total household income for 2005 was above or below $35,000?

Household Income				Total
	COOK; N=89	DUPAGE; N=87	MCHENRY; N=73	
	%	%	%	%
$0 - $14,999 (1)	7.87%	2.30%	2.74%	4.42%
$15,000 - $24,999 (2)	5.62%	4.60%	6.85%	5.62%
$25,000 - $34,999 (3)	4.49%	6.90%	6.85%	6.02%
$35,000 - $49,999 (4)	26.97%	11.49%	26.03%	21.29%
$50,000 - $74,999 (5)	19.10%	19.54%	28.77%	22.09%
$75,000 - $99,999 (6)	14.61%	16.09%	15.07%	15.26%
$100,000 or more (7)	21.35%	39.08%	13.70%	25.30%
Total	100.00%	100.00%	100.00%	100.00%
Mean	4.73	5.46	4.71	4.98
Standard Error	0.19	0.18	0.17	0.11

*RF - (8) COOK, (11) DUPAGE, (7) MCHENRY

PERSON ROSTER

P1 What is this person's gender?

Gender				Total
	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	
	%	%	%	%
Male	55.26%	49.34%	46.02%	49.91%
Female	44.74%	50.66%	53.98%	50.09%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK

P2 What is this person's age?

Age				Total
	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	
	%	%	%	%
Under 18 (1)	5.37%	24.11%	21.14%	18.07%
18-24 (2)	4.70%	2.23%	6.29%	4.20%
25-34 (3)	26.85%	8.04%	9.71%	13.69%
35-44 (4)	20.81%	13.39%	8.57%	13.87%
45-54 (5)	18.12%	16.07%	22.29%	18.61%
55-64 (6)	13.42%	21.88%	16.00%	17.70%
65+ (7)	10.74%	14.29%	16.00%	13.87%
Total	100.00%	100.00%	100.00%	100.00%
Mean	4.25	4.22	4.17	4.21
Standard Error	0.13	0.15	0.16	0.09

*DK/RF - (4) COOK, (3) DUPAGE, (1) MCHENRY

P3 IF AGE = DK/RF: Many of our questions about this person are based on his/her age. Can you tell me if NAME is at least 16 years of age?

UNDER 16 (0)
AGE 16+ (8)
DK/RF (0)

P4 Are you Hispanic or Latino? [ASK FOR REFERENCE PERSON ONLY]

Hispanic Origin				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
Yes	2.08%	0.00%	2.50%	1.46%
No	97.92%	100.00%	97.50%	98.54%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK

P5 And what is your race?

Race				Total
	COOK; N=97	DUPAGE; N=98	MCHENRY; N=80	
	%	%	%	%
White	86.46%	97.92%	98.75%	94.12%
Black or African American	7.29%	1.04%	0.00%	2.94%
American Indian or Alaska Native	0.00%	0.00%	1.25%	0.37%
Asian	4.17%	1.04%	0.00%	1.84%
Other, Specify	2.08%	0.00%	0.00%	0.74%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK, (2) DUPAGE

P6 Does NAME have any type of disability that affects your ability to travel?

Disability				Total
	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	
	%	%	%	%
Yes	3.95%	2.20%	6.90%	4.16%
No	96.05%	97.80%	93.10%	95.84%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK, (2) MCHENRY

P7 IF YES: What type of disability is that?

Disability Type				Total
	COOK; N=6	DUPAGE; N=5	MCHENRY; N=12	
	%	%	%	%
Limited Mobility	50.00%	20.00%	33.33%	34.78%
Blind/Visual	16.67%	20.00%	16.67%	17.39%
Mentally Disabled	0.00%	0.00%	8.33%	4.35%
Other, Specify	33.33%	60.00%	41.67%	43.48%
Total	100.00%	100.00%	100.00%	100.00%

P7a To what extent does/do he/she/you require assistance when he/she/you travel? Would you say its …

Assistance				Total
	COOK; N=6	DUPAGE; N=5	MCHENRY; N=12	
	%	%	%	%
Not at all	66.67%	20.00%	33.33%	39.13%
For a portion of each trip	33.33%	40.00%	41.67%	39.13%
For the entire trip	0.00%	40.00%	25.00%	21.74%
Total	100.00%	100.00%	100.00%	100.00%

P7b And has this person been issued a disabled license plate or mirror hangtag, or been registered to use the special transit services available to persons with disabilities?

Disability License				Total
	COOK; N=6	DUPAGE; N=5	MCHENRY; N=12	
	%	%	%	%
Yes	40.00%	0.00%	66.67%	45.45%
No	60.00%	100.00%	33.33%	54.55%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK

P8 Does NAME have a valid driver's license?

Valid Driver's License	COOK; N=146	DUPAGE; N=188	MCHENRY; N=147	Total
	%	%	%	%
Yes	90.97%	92.55%	89.04%	91.00%
No	9.03%	7.45%	10.96%	9.00%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (2) COOK, (1) MCHENRY

P9 Are you employed, either full-time or part-time?

Employment	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	Total
	%	%	%	%
Full-Time (30+ hrs/week)	61.18%	41.85%	40.57%	46.75%
Part-Time (<30 hrs/week)	9.87%	11.45%	9.71%	10.47%
Not Employed	28.95%	46.70%	49.71%	42.78%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (1) COOK, (1) MCHENRY

P10 [IF P9>2] Does NAME do any type of volunteer work on a regular basis?

Volunteer	COOK; N=45	DUPAGE; N=106	MCHENRY; N=88	Total
	%	%	%	%
Yes	20.45%	21.70%	14.77%	18.91%
No	79.55%	78.30%	85.23%	81.09%
Total	100.00%	100.00%	100.00%	100.00%

*DK/RF - (1) COOK

P11 [IF P9>2 AND P10>1] Which of the following best describes NAME's status?

Status	COOK; N=37	DUPAGE; N=83	MCHENRY; N=75	Total
	%	%	%	%
Retired	55.17%	41.86%	62.79%	53.04%
Disabled	3.45%	0.00%	0.00%	0.87%
Homemaker	0.00%	0.00%	2.33%	0.87%
Unemployed but looking for work	6.90%	18.60%	4.65%	10.43%
Unemployed and not looking for work	17.24%	6.98%	2.33%	7.83%
Student	0.00%	0.00%	2.33%	0.87%
Other	17.24%	32.56%	25.58%	26.09%
Total	100.00%	100.00%	100.00%	100.00%

*DK/RF - (8) COOK, (40) DUPAGE, (32) MCHENRY

P12 [AGE>4] Can you tell me if [NAME] regularly travels in any of these ways for reasons other than exercise …

Travel		COOK; N=150	DUPAGE; N=213	MCHENRY; N=165	Total
		%	%	%	%
Bike	Yes	27.70%	11.79%	14.02%	16.98%
	No	72.30%	88.21%	85.98%	83.02%
	Total	100.00%	100.00%	100.00%	100.00%
Walking	Yes	77.03%	49.53%	45.73%	56.11%
	No	22.97%	50.47%	54.27%	43.89%
	Total	100.00%	100.00%	100.00%	100.00%
Transit	Yes	78.38%	24.06%	21.34%	38.55%
	No	21.62%	75.94%	78.66%	61.45%
	Total	100.00%	100.00%	100.00%	100.00%

*RF - (2) COOK, (1) DUPAGE, (1) MCHENRY

W1 How many jobs does NAME have?

# of Jobs	COOK; N=116	DUPAGE; N=144	MCHENRY; N=101	Total
	%	%	%	%
One	93.97%	90.97%	90.10%	91.69%
Two	5.17%	7.64%	8.91%	7.20%
Three	0.86%	0.69%	0.99%	0.83%
Five	0.00%	0.69%	0.00%	0.28%
Total	100.00%	100.00%	100.00%	100.00%
Mean	1.07	1.12	1.11	1.10
Standard Error	0.03	0.04	0.03	0.02

IF MORE THAN ONE JOB:

W2 [SHORT] Please tell me which one your/his/her job falls under:

1 Sales or Service (45)
2 Clerical or Administrative Support (22)
3 Manufacturing, Construction, Maintenance, or Farming, or (10)
4 Professional, Managerial, or Technical? (88)
7 OTHER- SPECIFY (28)
8 DK (0)
9 REFUSED (2)

W3 [LONG] Please tell me which one best describes the type of work/volunteer activity this person does Would you say it was …

1 Management (15)
2 Technical or Professional (23)
3 Legal, Social Service or Health Care (22)
4 Education or the Arts (33)
5 Administrative/Clerical (13)
6 Sales and related occupations (11)
7 Service (15)
8 Industrial / Construction / Agricultural / Transportation (11)
9 Armed Forces (2)
97 OTHER – SPECIFY (23)
98 DK (0)
99 REFUSED (0)

IF MANAGEMENT ASK:
Would that be -
1 Management, (7)
2 Farmers and Farm Managers, or (0)
3 Business and Financial Operations Specialists? (7)
7 OTHER SPECIFY (1) – Non-Profit
8 DON'T KNOW

IF TECHNICAL OR PROFESSIONAL, ASK:
Would that be –
1 Computer and mathematical sciences, (3)
1 Architecture or Engineering (4)
2 Life, Physical, Social Scientist? (4)
7 OTHER SPECIFY (11)
8 DON'T KNOW (1)

IF LEGAL, SOCIAL SERVICE, HEALTH CARE ASK
Is that?
1 Lawyer, Paralegal, (5)
2 Community and social service provider (5)
3 Health Care Practitioners & Professional Support (MD, RN, LPN, etc), or (7)
4 Healthcare Support Operations, non-professional? (3)
7 OTHER SPECIFY (2) – (1) Dentist, (1) Works at a food pantry
8 DON'T KNOW (0)

IF EDUCATION OR THE ARTS ASK
Is that?
1 Education, Technical Training, Librarian (14)
2 Arts, Design, Entertainment, Sports, Media (19)
7 OTHER SPECIFY (0)
8 DON'T KNOW (0)

IF SERVICES ASK - Is that?
1 Healthcare Support Operations, non-professional [DUPLICATE – PER CENSUS] (5)
2 Protective Services (0)
3 Food Preparation Services (0)
4 Building and Grounds Maintenance (0)
5 Personal Care and Services (1)
6 Installation, Maintenance and Repair (0)
7 OTHER SPECIFY (4)
8 DON'T KNOW (5)

IF INDUSTRIAL / CONSTRUCTION / AGRICULTURE/ TRANSPORTATION ASK: Is that
1 Farming, Fishing, Forestry (no as owner/manager) (0)
2 Construction and Excavation (3)
3 Installation, Maintenance, and Repair [DUPLICATED PER CENSUS] (1)
4 Production / Assembly Line (3)
5 Transportation and Material Moving (3)
7 OTHER SPECIFY (1) – Flower Shop
8 DON'T KNOW (0)

W5 At what location does this person normally [work/volunteer]?

Work Location				Total
	COOK; N=116	DUPAGE; N=144	MCHENRY; N=101	
	%	%	%	%
Home (1)	8.93%	8.39%	4.00%	7.32%
Address Given (2)	83.04%	87.41%	87.00%	85.92%
Varies (3)	5.36%	3.50%	5.00%	4.51%
No Set Work Location (4)	2.68%	0.70%	4.00%	2.25%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (1) COOK, (1) DUPAGE

*RF - (3) COOK, (1) MCHENRY

W6 How many days a week do you typically go to work at this address?
ANSWER 1 to 7

Days Worked				Total
	COOK; N=91	DUPAGE; N=107	MCHENRY; N=76	
	%	%	%	%
1	6.59%	13.08%	6.58%	9.12%
2	3.30%	10.28%	11.84%	8.39%
3	7.69%	9.35%	7.89%	8.39%
4	4.40%	8.41%	13.16%	8.39%
5	67.03%	50.47%	50.00%	55.84%
6	7.69%	6.54%	9.21%	7.66%
7	3.30%	1.87%	1.32%	2.19%
Total	100.00%	100.00%	100.00%	100.00%
Mean	4.58	4.00	4.21	4.25
Standard Error	0.14	0.16	0.17	0.09

W7 How does this person normally get to work/their volunteer activity?

Work Mode				Total
	COOK; N=116	DUPAGE; N=144	MCHENRY; N=101	
	%	%	%	%
Walk	9.52%	6.82%	2.04%	6.27%
Bike	4.76%	0.00%	2.04%	2.09%
Auto Driver	29.52%	72.73%	89.80%	64.18%
Auto Passenger	0.95%	3.03%	2.04%	2.09%
CTA bus	22.86%	0.00%	1.02%	7.46%
CTA Train	25.71%	0.00%	0.00%	8.06%
Metra Train	1.90%	12.12%	3.06%	6.27%
Private shuttle bus	0.00%	1.52%	0.00%	0.60%
Other, specify	4.76%	3.79%	0.00%	2.99%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (9) COOK, (12) DUPAGE, (3) MCHENRY

*RF - (2) COOK

W8 Does NAME's job require you/him/her to have a personal vehicle available while at work?

Personal Vehicle				Total
	COOK; N=116	DUPAGE; N=144	MCHENRY; N=101	
	%	%	%	%
Yes	14.41%	19.58%	34.65%	22.25%
No	85.59%	80.42%	65.35%	77.75%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (5) COOK, (1) DUPAGE

W9 [LONG] [IF W5>1] Does NAME's employer allow him/her to work from home for pay on a regular basis? This would be in place of driving to a regular work location, something that is commonly referred to as "telework."

Work from home				Total
	COOK; N=45	DUPAGE; N=56	MCHENRY; N=52	
	%	%	%	%
Yes	25.00%	21.43%	11.54%	19.08%
No	75.00%	78.57%	88.46%	80.92%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (1) COOK

W10 [LONG] [IF W9=1]About how often do you/does NAME work at home instead of traveling to your/his/her usual workplace? Would you say:

Work from home				Total
	COOK; N=11	DUPAGE; N=12	MCHENRY; N=6	
	%	%	%	%
Almost every day	0.00%	57.14%	20.00%	25.00%
Once a week or more	50.00%	28.57%	80.00%	50.00%
A few times a year	50.00%	14.29%	0.00%	25.00%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (1) DUPAGE

*RF - (3) COOK, (4) DUPAGE, (1) MCHENRY

W11 [LONG] Which of the following statements best describes your work schedule?

Work Schedule				Total
	COOK; N=50	DUPAGE; N=61	MCHENRY; N=53	
	%	%	%	%
I have no flexibility in my work schedule	20.00%	26.23%	28.85%	25.15%
I have some flexibility in my work schedule	52.00%	44.26%	48.08%	47.85%
I'm pretty much free to adjust my schedule as I like	28.00%	29.51%	23.08%	26.99%
Total	100.00%	100.00%	100.00%	100.00%
*DK/RF - (1) MCHENRY				

W12 [LONG] Of the last 10 times you went to work at this location, roughly how many of those times did you arrive there:

Work Arrival Time				Total
	COOK; N=450	DUPAGE; N=540	MCHENRY; N=520	
	%	%	%	%
Before 6 AM	12.67%	5.56%	15.00%	10.93%
Between 6 and 6:30 AM	6.22%	7.04%	2.88%	5.36%
Between 6:30 and 7 AM	3.56%	10.93%	15.58%	10.33%
Between 7 and 7:30 AM	13.11%	2.96%	12.12%	9.14%
Between 7:30 and 8 AM	8.89%	8.15%	11.92%	9.67%
Between 8 and 8:30 AM	12.44%	22.04%	10.77%	15.30%
Between 8:30 and 9 AM	22.00%	18.15%	13.46%	17.68%
After 9 AM	21.11%	25.19%	18.27%	21.59%
Total	100.00%	100.00%	100.00%	100.00%

W13 [LONG] Of the last 10 times you went to work at this location, roughly how many of those times did you depart there:

Work Departure Time				Total
	COOK; N=450	DUPAGE; N=540	MCHENRY; N=510	
	%	%	%	%
Before 3:30 PM	12.00%	22.59%	33.08%	23.05%
Between 3:30 and 4 PM	5.56%	12.04%	10.96%	9.74%
Between 4 and 4:30 PM	13.33%	8.15%	9.23%	10.07%
Between 4:30 and 5 PM	12.89%	11.48%	14.62%	12.98%
Between 5 and 5:30 PM	23.78%	13.52%	9.23%	15.10%
Between 5:30 and 6 PM	8.00%	6.85%	5.77%	6.82%
Between 6 and 6:30 PM	6.00%	11.30%	1.73%	6.42%
After 6:30 PM	18.44%	14.07%	15.38%	15.83%
Total	100.00%	100.00%	100.00%	100.00%

W14 [LONG] Do you choose the times you go to and from work in order to avoid traffic congestion?

Avoid Congestion				Total
	COOK; N=45	DUPAGE; N=54	MCHENRY; N=52	
	%	%	%	%
Yes, Occasionally	9.09%	9.26%	3.85%	7.33%
Yes, Usually	18.18%	7.41%	17.31%	14.00%
No	72.73%	83.33%	78.85%	78.67%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (1) COOK

W15 [LONG] Does your employer offer compressed work week options? (A COMPRESSED WORK WEEK IS WORKING 40 HOURS IN LESS THAN 5 DAYS OR 80 HOURS IN LESS THAN 10 DAYS)

Compressed work week				Total
	COOK; N=50	DUPAGE; N=61	MCHENRY; N=53	
	%	%	%	%
Yes	23.40%	3.45%	9.80%	11.54%
No	76.60%	96.55%	90.20%	88.46%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (3) COOK, (3) DUPAGE, (2) MCHENRY

W16 How long has he/she worked at this location?

Work length	COOK; N=116	DUPAGE; N=144	MCHENRY; N=101	Total
	%	%	%	%
Less than 1 year (1)	20.35%	11.89%	13.86%	15.13%
At least 1 year but less than 2 years (2)	11.50%	10.49%	11.88%	11.20%
At least 2 years but less than 5 years (3)	25.66%	18.88%	24.75%	22.69%
At least 5 years but less than 10 years (4)	17.70%	25.87%	12.87%	19.61%
10 or more years (5)	24.78%	32.87%	36.63%	31.37%
Total	100.00%	100.00%	100.00%	100.00%

*RF - (3) COOK, (1) DUPAGE

W18 [LONG] What was the primary reason you moved from your previous work address? SELECT ONLY ONE

Reason for move	COOK; N=18	DUPAGE; N=16	MCHENRY; N=14	Total
	%	%	%	%
Changed job	44.44%	31.25%	50.00%	41.67%
Transferred	5.56%	18.75%	21.43%	14.58%
Employer Moved	0.00%	0.00%	7.14%	2.08%
Other, Specify	50.00%	50.00%	21.43%	41.67%
Total	100.00%	100.00%	100.00%	100.00%

W19 [LONG] [IF W18=1] Why did you change jobs? VERBATIM

Why Job Change:	Frequency
BETTER BENEFITS	1
BETTER ENVIRONMENT	1
BETTER JOB	4
BETTER PAY	3
CHANGE OF CAREER	2
CHANGE OFJOB	1
CONTRACT ENDED	1
DID NOT LIKE JOB OR MANAGEMENT	1
NEW JOB	1
REFUSED	1
SMALL FAMILY BUSINESS	1
TIRED OF MANAGEMENT	1
TO START MY OWN BUSINESS	1
WANTED NEW ENVIRONMENT	1
Total	20

W20 In accepting this job, which factors were most important to you? (MULTIPLE RESPONSE) ROTATE

Factors				Total
	COOK	DUPAGE	MCHENRY	
	%	%	%	%
Wage of Salary	22.12%	14.63%	26.92%	21.21%
Career Opportunity	31.73%	35.37%	33.33%	33.33%
Job location/length of commute	14.42%	13.41%	15.38%	14.39%
Easily reached by transit	14.42%	0.00%	2.56%	6.44%
Close to child's school	0.00%	4.88%	1.28%	1.89%
Crime level/neighborhood safety at new work location	0.96%	3.66%	0.00%	1.52%
Work location appearance or other amenities	4.81%	6.10%	10.26%	6.82%
Other, specify	11.54%	21.95%	10.26%	14.39%
Total	100.00%	100.00%	100.00%	100.00%

Other Factors:	Frequency
ABILITY TO WORK FROM HOME	1
COMPANY MOVED	1
FIRST JOB	1
FRIENDLY CO-WORKERS	2
GIVING BACK TO COMMUNITY	2
JOB HELPS ME GET MY MASTER'S	1
JOB SATISFACTION	4
LARGER CHURCH	1
LESS STRESS	1
MISSION OF ORGANIZATION	1
MORE ACTIVITY	1
N/A	7
NEW BUSINESS	1
NEW CHALLENGE	1
NEW COMPANY NEEDED HELP	1
ONLY JOB AVAILABLE	1
ONLY ONE DAY/MONTH	1
OPPORTUNITY FOR SELF EMPLOYMENT	3
PART TIME AFTER SCHOOL JOB	2
PART TIME JOB	1
TYPE OF OCCUPATION (LIBRARIAN) I WAS LOOKING FOR	1
VOLUNTEERING EXTRA TIME	1
WORK LOCATION & SCHOOL FLEXIBILITY	1
WORK/FAMILY BALANCE	1
Total	38

SCHOOL-RELATED DATA

C1 What is the highest degree or level of school you've completed?

Education				Total
	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	
	%	%	%	%
Not a high school graduate (1)	4.14%	22.12%	22.54%	17.46%
High school graduate (2)	3.45%	8.85%	18.50%	10.48%
Some college (3)	13.10%	8.85%	17.92%	12.87%
Associate or technical school degree (4)	7.59%	3.98%	8.67%	6.43%
Bachelor or undergraduate degree (5)	42.76%	26.99%	17.92%	28.31%
Graduate degree (6)	26.21%	26.55%	12.72%	22.06%
Other, Specify (7)	2.76%	2.65%	1.73%	2.39%
Total	100.00%	100.00%	100.00%	100.00%

*DK/RF - (8) COOK, (1) DUPAGE, (3) MCHENRY

C2 Is this person currently enrolled in any type of school, including [if age<6 daycare], technical school, or university?

Student Status				Total
	COOK; N=153	DUPAGE; N=227	MCHENRY; N=176	
	%	%	%	%
Yes - Full time	9.27%	15.86%	20.57%	15.55%
Yes - Part time	6.62%	7.05%	6.29%	6.69%
No	84.11%	77.09%	73.14%	77.76%
Total	100.00%	100.00%	100.00%	100.00%

*DK/RF - (2) COOK, (1) MCHENRY

C3 What school grade or level does this person attend?

Student Status				Total
	COOK; N=24	DUPAGE; N=52	MCHENRY; N=47	
	%	%	%	%
Daycare	0.00%	1.92%	2.13%	1.63%
Pre-school, nursery	0.00%	7.69%	8.51%	6.50%
K-8	8.33%	38.46%	31.91%	30.08%
9-12	0.00%	28.85%	17.02%	18.70%
Technical/Vocation School	4.17%	0.00%	0.00%	0.81%
2 year college	4.17%	1.92%	17.02%	8.13%
4-year college or university	25.00%	5.77%	12.77%	12.20%
Graduate school/professional	54.17%	13.46%	6.38%	18.70%
Other, Specify	4.17%	1.92%	4.26%	3.25%
Total	100.00%	100.00%	100.00%	100.00%

C4 Where is it located?

School location				Total
	COOK; N=24	DUPAGE; N=52	MCHENRY; N=47	
	%	%	%	%
Home	0.00%	3.85%	8.51%	4.88%
Address given	100.00%	96.15%	91.49%	95.12%
Total	100.00%	100.00%	100.00%	100.00%

C7 How does this person normally get to school?

School Mode				Total
	COOK; N=24	DUPAGE; N=52	MCHENRY; N=47	
	%	%	%	%
Walk	13.04%	38.78%	13.95%	24.35%
Bike	4.35%	2.04%	2.33%	2.61%
Auto Driver	13.04%	26.53%	37.21%	27.83%
Auto Passenger	8.70%	16.33%	9.30%	12.17%
CTA Bus	21.74%	2.04%	0.00%	5.22%
CTA Train	30.43%	0.00%	0.00%	6.09%
School Bus	4.35%	14.29%	37.21%	20.87%
Other, Specify	4.35%	0.00%	0.00%	0.87%
Total	100.00%	100.00%	100.00%	100.00%

*DK - (1) COOK, (3) DUPAGE, (4) MCHENRY

APPENDIX B: PLACE-BASED RETRIEVAL RESULTS

Chicago Travel & Activity Survey
Place-Based Retrieval Questionnaire
24 hour survey : N=136 persons, 66 households
48 hour survey : N=79 persons, 42 households

E1. Information provided by informant vs proxy

	24hr Survey; N=136	48hr Survey; N=79	Total
	Frequency	Frequency	
Informant	77	43	120
Proxy	59	36	95
Total	136	79	215

C1 Can you tell me how many deliveries were made to your house on ASSN? This includes any commercial deliveries, including the mail, UPS, and FedEX, as well as for delivery or pickup of household items.

HH Deliveries	24hr Survey; N=66	48hr Survey; N=42	Total
	Frequency	Frequency	
0	3	3	6
1	55	14	69
2	7	20	27
3	1	0	1
4	0	3	3
5	0	1	1
14	0	1	1
Total	66	42	108

C2 And did you have any service calls made to your house on ASSN, for any reason? If so, how many?

HH Services	24hr Survey; N=66	48hr Survey; N=42	Total
	Frequency	Frequency	
0	64	35	99
1	2	4	6
2	0	2	2
3	0	1	1
Total	66	42	108

IF NOT PROXY REPORT:
E3 In general, would you say that ASSN [was a/were] typical day(s) for you?

Typical Day	24hr Survey; N=23	48hr Survey; N=5	Total
	Frequency	Frequency	
Yes	18	5	23
No	5	0	5
Total	23	5	28

E4 Was most of your travel and activities for this period planned in advance or did you change your plans as the day progressed?

Events Planned	24hr Survey; N=23	48hr Survey; N=5	Total
	Frequency	Frequency	
Yes	17	4	21
No	6	1	7
Total	23	5	28

E5 [IF EMPLOYED] [Was this a typical work day/Were these typical work days] for you, in terms of the hours you worked, when you arrived at work, and when you left work?

Typical Work Day	24hr Survey; N=19	48hr Survey; N=2	Total
	Frequency	Frequency	
Yes	14	2	16
No	5	0	5
Total	19	2	21

E6 [IF STUDENT] [Was this a typical school day/Were these typical school days] for you, in terms of the hours you worked, when you arrived at school, and when you left school?

Typical School Day	24hr Survey; N=6	48hr Survey; N=0	Total
	Frequency	Frequency	
Yes	3	0	3
No	3	0	3
Total	6	0	6

T1. Now I'd like to talk about the travel and activities [this person] recorded in the log we sent. Did [NAME] complete the travel log? [ASK OF EVERYONE REGARDLESS OF PROXY STATUS]

Completed Log	24hr Survey; N=136	48hr Survey; N=79	Total
	Frequency	Frequency	
Yes	96	62	158
No	40	17	57
Total	136	79	215

T4 Place Locations

Place Location	24hr Survey; N=136	48hr Survey; N=79		Total
	Day 1	Day1	Day 2	
	Frequency	Frequency	Frequency	
Home	337	191	174	702
Work	72	39	29	140
School	25	12	5	42
Previously entered place	54	30	44	128
New place - in area	259	128	115	502
New place - in state	3	0	1	4
New place - out of state	4	6	2	12
Total Places	754	406	370	1530

L1 [LONG] [IF EMPLOYED AND WORKS OUTSIDE THE HOME] Would you say that this place is:

Place Location	24hr Survey; N=38	48hr Survey; N=49	Total
	Frequency	Frequency	
Closer to your home than your work	28	30	58
Closer to your work than your home	6	15	21
About halfway between your home and work	1	2	3
Other, Specify	3	2	5
Total	38	49	87

L2 [LONG] [IF NOT PROXY AND PTYPE=NEW] How often have you visited this place?

Place Frequency	24hr Survey; N=89	48hr Survey; N=62	Total
	Frequency	Frequency	
Never before	2	8	10
Very rarely	10	7	17
1-11 times per year	25	10	35
1-3 times per month	17	14	31
Once per week or more	33	13	46
Other, Specify	2	10	12
Total	89	62	151

L3 [LONG] [IF L2>1] Is this place:

Is this place….	24hr Survey; N=89	48hr Survey; N=67	Total
	Frequency	Frequency	
Where you regularly do this activity?	61	42	103
A location you chose for convenience?	24	12	36
Other, Specify	4	13	17
Total	89	67	156

L4 [LONG] [IF L2>1] Have you ever used any modes of travel to this place besides the one you used this time?
MULTIPLE RESPONSES ALLOWED

Travel Mode	24hr Survey; N=86	48hr Survey; N=53	Total
	Frequency	Frequency	
No	66	40	106
Yes, by car	7	6	13
Yes, by transit	3	3	6
Yes, by walking	5	3	8
Yes, by biking	2	1	3
Other, Specify	3	0	3
Total	86	53	139

L5 [LONG] [IF L4>1] What is the main reason you did not use that mode (those modes) this time?

Other Mode Reason	24hr Survey; N=25	48hr Survey; N=21	Total
	Frequency	Frequency	
Did not have time	3	3	6
Was not convenient	8	6	14
Car was not available	1	2	3
Someone gave me a ride	1	0	1
Too Expensive	1	0	1
Other, specify	11	10	21
Total	25	21	46

T8. How did you get there?

Trip Mode	24hr Survey, N=136	48hr Survey; N=79	Total
	Frequency	Frequency	
Walk	88	85	173
Bike	1	0	1
Auto Driver	359	338	697
Auto Passenger	116	140	256
CTA Bus	14	10	24
CTA Train	14	16	30
Metra Train	18	8	26
School Bus	6	8	14
Taxi	1	2	3
Other, Specify	2	6	8
Refused	0	7	7
Total	619	620	1239

FOR ALL TRIPS (REGARDLESS OF MODE), ASK
T9 How many traveled on this trip? [TOTAL]

# of Travelers	24hr Survey; N=136	48hr Survey; N=79	Total
	Frequency	Frequency	
1	299	287	586
2	67	49	116
3	163	167	330
4	58	96	154
5	20	20	40
6	5	0	5
7	0	1	1
10	7	0	7
Total	619	620	1239

T10 [IF T9 >1] Of these, how many were household members?

# of HH Members	24hr Survey; N=136	48hr Survey; N=79	Total
	Frequency	Frequency	
0	124	93	217
1	127	137	264
2	57	88	145
3	12	15	27
Total	320	333	653

IF AUTO:

A2 Did you get out of your vehicle?

Out of Vehicle	24hr Survey; N=323	48hr Survey; N=315	Total
	Frequency	Frequency	
Yes	276	269	545
No	47	46	93
Total	323	315	638

A3 [LONG] [IF A2=1] Where did you park?

Park	24hr Survey; N=109	48hr Survey; N=87	Total
	Frequency	Frequency	
Private Parking Lot/Garage	40	17	57
Public Parking Lot/Garage	46	51	97
Street	8	14	22
Other, Specify	14	5	19
DK	1	0	1
Total	109	87	196

A4 [LONG] Did you pay to park?

Paid to Park	24hr Survey; N=276	48hr Survey; N=269	Total
	Frequency	Frequency	
Yes	7	6	13
No	268	263	531
DK/RF	1	0	1
Total	276	269	545

IF TRANSIT:

R1 How many buses or trains did you use to make this trip?

# of Buses or Trains	24hr Survey; N=46	48hr Survey; N=34	Total
	Frequency	Frequency	
1	34	26	60
2	10	8	18
3	2	0	2
Total	46	34	80

IF ONLY ONE BUS/TRAIN USED TO GET TO THIS PLACE

R2 [IF R1=1] Which type of transit did you take?

Transit Used	24hr Survey; N=46	48hr Survey; N=34	Total
	Frequency	Frequency	
CTA Bus	16	8	24
CTA Train	13	18	31
Metra Train	17	8	25
Total	46	34	80

R6 How did you get to this MODE?

Board Mode	24hr Survey; N=45	48hr Survey; N=34	Total
	Frequency	Frequency	
Walked	37	29	66
Biked	1	0	1
Drove and parked	2	5	7
Dropped off	4	0	4
Other, Specify	1	0	1
Total	45	34	79

R7 [IF R6=1 OR 2] How far did you WALK/BIKE to get to the bus or train? ANY WAY OF ANSWERING IS FINE – JUST OBTAIN QUANTITY

Distance to Bus/Train		24hr Survey; N=38	48hr Survey; N=29	Total
		Frequency	Frequency	
Blocks	1	7	5	12
	2	7	2	9
	3	1	0	1
	4	4	3	7
	5	1	0	1
	6	1	5	6
	8	1	0	1
	10	1	1	2
Minutes	1	1	2	3
	2	0	1	1
	3	0	1	1
	5	1	3	4
	9	2	0	2
	10	2	3	5
	11	0	1	1
	12	0	2	2
	13	1	0	1
Miles	1	3	0	3
Other		4	0	4
	Total	37	29	66

Missing – (1) 24hr survey response

R9 And when you got off this bus or train, how did you get to your destination?

Destination Mode	24hr Survey; N=45	48hr Survey; N=34	Total
	Frequency	Frequency	
Walked	33	25	58
Biked	0	0	0
Drove and parked	0	1	1
Dropped off	1	0	1
Transferred	11	5	16
Other, Specify	0	3	3
Total	45	34	79

R10 [IF R9=1 OR 2] How far did you WALK/BIKE to get to that place?

Distance to Destination		24hr Survey; N=33	48hr Survey; N=25	Total
		Frequency	Frequency	
Blocks	1	10	6	16
	2	6	2	8
	3	0	1	1
	4	7	2	9
	6	0	4	4
	8	1	0	1
	10	1	1	2
Minutes	1	2	2	4
	3	0	1	1
	5	2	1	3
	10	0	3	3
Miles	1	2	0	2
Other		2	0	2
	Total	33	23	56

Missing (2) – 48hr survey

R19 How did you pay your fare for this trip?

Fare	24hr Survey; N=45	48hr Survey; N=35	Total
	Frequency	Frequency	
Cash	8	2	10
Senior Pass	6	11	17
Youth Pass	12	10	22
Single Day Pass	2	4	6
Monthly Pass	0	1	1
Other, Specify	14	6	20
DK/RF	3	1	4
Total	45	35	80

R20 Did you have an automobile available to you when you chose to make this trip by bus or train?

Auto Available	24hr Survey; N=45	48hr Survey; N=35	Total
	Frequency	Frequency	
Yes	20	13	33
No	24	21	45
Refused	1	1	2
Total	45	35	80

T14. What was<YOUR >your main activity there?

AT MY HOME:

Home	24hr Survey; N=339	48hr Survey; N=360	Total
	Frequency	Frequency	
Working at Home (for pay)	7	5	12
Attending Class at Home	0	0	0
All Other at Home Activities	332	355	687
Total	339	360	699

AT MY WORK/VOLUNTEER LOCATION:

Work/Volunteer Location	24hr Survey; N=81	48hr Survey; N=76	Total
	Frequency	Frequency	
Work/Job	75	74	149
All Other Activities at Work	6	2	8
Total	81	76	157

AT MY SCHOOL:

School	24hr Survey; N=27	48hr Survey; N=17	Total
	Frequency	Frequency	
Attending Class	24	16	40
Education-Related Activities	0	1	1
All Other Activities at School	3	0	3
Total	27	17	44

WHILE TRAVELING

While Traveling	24hr Survey; N=53	48hr Survey; N=61	Total
	Frequency	Frequency	
Change Type of Transportation/Transfer	15	20	35
Dropped Off Passenger from Car	18	14	32
Picked up Passenger from Car	18	24	42
Other, Specify	2	3	5
Total	53	61	114

AT OTHER PLACES

At Other Places	24hr Survey; N=254	48hr Survey; N=262	Total
	Frequency	Frequency	
Work Related	21	6	27
Service Private Vehicle	8	7	15
Household Errands	76	97	173
Eat Meal Outside of Home	42	47	89
Health Care	8	11	19
Civic/Religious Activities	5	10	15
Recreation/Entertainment	34	36	70
Visit Friends/Relatives	28	12	40
Other, Specify	32	36	68
Total	254	262	516

T15. And what other activities did<YOU >do there?

AT MY HOME:

Home	24hr Survey; N=11	48hr Survey; N=10	Total
	Frequency	Frequency	
Working at Home (for pay)	0	1	1
Attending Class at Home	1	0	1
All Other at Home Activities	10	9	19
Total	11	10	21

AT MY WORK/VOLUNTEER LOCATION:

Work/Volunteer Location	24hr Survey; N=28	48hr Survey; N=7	Total
	Frequency	Frequency	
Work/Job	3	0	3
All Other Activities at Work	25	7	32
Total	28	7	35

AT MY SCHOOL:

School	24hr Survey; N=5	48hr Survey; N=6	Total
	Frequency	Frequency	
Attending Class	0	0	0
Education-Related Activities	0	4	4
All Other Activities at School	5	2	7
Total	5	6	11

WHILE TRAVELING

While Traveling	24hr Survey; N=3	48hr Survey; N=1	Total
	Frequency	Frequency	
Change Type of Transportation/Transfer	1	0	1
Dropped Off Passenger from Car	2	0	2
Picked up Passenger from Car	0	1	1
Other, Specify	0	0	0
Total	3	1	4

AT OTHER PLACES

At Other Places	24hr Survey; N=19	48hr Survey; N=6	Total
	Frequency	Frequency	
Work Related	2	2	4
Service Private Vehicle	0	0	0
Household Errands	0	0	0
Eat Meal Outside of Home	2	2	4
Health Care	0	0	0
Civic/Religious Activities	0	0	0
Recreation/Entertainment	2	0	2
Visit Friends/Relatives	6	1	7
Other, Specify	7	1	8
Total	19	6	25

APPENDIX C: ACTIVITY-BASED RETRIEVAL RESULTS

Chicago Travel & Activity Survey
Activity Retrieval Questionnaire
24 hour Survey : N=77 persons, 42 households

E1. Information provided by informant vs proxy

	24hr Survey; N=77
	Frequency
Informant	48
Proxy	29
Total	77

C1 Can you tell me how many deliveries were made to your house on ASSN? This includes any commercial deliveries, including the mail, UPS, and FedEX, as well as for delivery or pickup of household items.

HH Deliveries	24hr Survey; N=42
	Frequency
0	4
1	31
2	7
3	0
4	0
5	0
14	0
Total	42

C2 And did you have any service calls made to your house on ASSN, for any reason? If so, how many?

HH Services	24hr Survey; N=42
	Frequency
0	40
1	2
2	0
3	0
Total	42

IF NOT PROXY REPORT:
E3 In general, would you say that ASSN was a typical day for you?

Typical Day	24hr Survey; N=12
	Frequency
Yes	10
No	2
Total	12

E4 Was most of your travel and activities for this period planned in advance or did you change your plans as the day progressed?

Events Planned	24hr Survey; N=12
	Frequency
Yes	8
No	4
Total	12

E5 [IF EMPLOYED] Was this a typical work day for you, in terms of the hours you worked, when you arrived at work, and when you left work?

Typical Work Day	24hr Survey; N=5
	Frequency
Yes	4
No	1
Total	5

E6 [IF STUDENT] Was this a typical school day/ for you, in terms of the hours you worked, when you arrived at school, and when you left school?

Typical School Day	24hr Survey; N=1
	Frequency
Yes	0
No	1
Total	1

T1. Now I'd like to talk about the travel and activities [this person] recorded in the log we sent. Did [NAME] complete the travel log? [ASK OF EVERYONE REGARDLESS OF PROXY STATUS]

Completed Log	24hr Survey; N=77
	Frequency
Yes	53
No	24
Total	77

T3 How many total activities did<YOU >list over the course of the day?

# of Activities	24hr Survey; N=77
	Frequency
1	76
2	74
3	74
4	69
5	66
6	62
7	55
8	51
9	46
10	38
11	34
12	30
13	26
14	19
15	16
16	13
17	11
18	9
19	7
20	7
21	6
22	3
23	2
24	2
25	2
26	2
27	1
Total	801

T7 And where did you do this activity?

Activity Location	24hr Survey; N=77
	Frequency
Home	490
Work	48
School	23
Previously entered place	56
New place - in area	179
New place - out of state	5
Total Places	801

L1 [LONG] [IF EMPLOYED AND WORKS OUTSIDE THE HOME] Would you say that this place is:

Activity Location	24hr Survey; N=11
	Frequency
Closer to your home than your work	5
Closer to your work than your home	1
About halfway between your home and work	1
Other, Specify	4
Total	11

L2 [LONG] [IF NOT PROXY AND PTYPE=NEW] How often have you visited this place?

Place Frequency	24hr Survey; N=12
	Frequency
1-11 times per year	1
1-3 times per month	1
Once per week or more	6
Other, Specify	4
Total	12

L3 [LONG] [IF L2>1] Is this place:

a. Where you regularly do this activity? (yes/no)
b. a location you chose for convenience? (yes/no)
c. [IF NO TO BOTH] Why did you choose this place? VERBATIM

FOR ALL TRIPS (REGARDLESS OF MODE), ASK

T9 How many others were with <YOU2 > at this activity? NOT INCLUDING THIS RESPONDENT

# of Travelers	24hr Survey; N=77
	Frequency
1	629
2	43
3	99
4	30
Total	801

T10 [IF T9 >1] Of these, how many were household members?

# of HH Members	24hr Survey; N=77
	Frequency
0	83
1	70
2	19
Total	172

T8 Did you travel as part of this activity?

1 YES
2 NO ➔ LOOP TO NEXT ACTIVITY

T8a. [If YES] How did you get there?

Trip Mode	24hr Survey, N=77
	Frequency
Walk	64
Bike	4
Auto Driver	159
Auto Passenger	51
CTA Bus	11
CTA Train	7
Metra Train	6
School Bus	7
Taxi	2
Other, Specify	1
Total	312

L4 [LONG] [IF L2>1] Have you ever used any modes of travel to this place besides the one you used this time? MULTIPLE RESPONSES ALLOWED

Travel Mode	24hr Survey; N=12
	Frequency
No	10
Yes, by transit	1
Yes, by walking	1
Total	12

L5 [LONG] [IF L4>1] What is the main reason you did not use that mode (those modes) this time?

Other, Specify – 2 responses, (1) too much luggage, (1) going to another destination

IF AUTO:

A2 Did you get out of your vehicle?

Out of Vehicle	24hr Survey; N=210
	Frequency
Yes	185
No	25
Total	210

A3 [LONG] [IF A2=1] Where did you park?

Park	24hr Survey; N=185
	Frequency
Private Parking Lot/Garage	15
Public Parking Lot/Garage	110
Street	52
Other, Specify	5
DK	3
Total	185

A4 [LONG] Did you pay to park?

Paid to Park	24hr Survey; N=185
	Frequency
Yes	5
No	180
Total	185

IF TRANSIT:

R1 How many buses or trains did you use to make this trip?

# of Buses or Trains	24hr Survey; N=25
	Frequency
1	23
2	1
3	1
Total	25

IF ONLY ONE BUS/TRAIN USED TO GET TO THIS PLACE

R2 [IF R1=1] Which type of transit did you take?

Transit Used	24hr Survey; N=25
	Frequency
CTA Bus	11
CTA Train	8
Metra Train	6
Total	25

R6 How did you get to this MODE?

Board Mode	24hr Survey; N=25
	Frequency
Walked	22
Drove and parked	2
Dropped off	1
Total	25

R7 [IF R6=1 OR 2] How far did you WALK/BIKE to get to the bus or train?

Distance to Bus/Train		24hr Survey; N=22
		Frequency
Blocks	1	2
	2	7
	3	3
	4	2
	6	1
Minutes	2	1
	4	2
	5	2
	10	1
	15	1
	Total	22

R9 And when you got off this bus or train, how did you get to your destination?

Destination Mode	24hr Survey; N=25
	Frequency
Walked	20
Drove and parked	2
Transferred	2
Total	24

Missing - (1)

R10 [IF R9=1 OR 2] How far did you WALK/BIKE to get to that place?

Distance to Destination		24hr Survey; N=21
		Frequency
Blocks	1	4
	2	4
	3	2
	4	2
	5	1
	6	1
Minutes	1	2
	2	1
	4	1
	5	3
	Total	21

R19 How did you pay your fare for this trip?

Fare	24hr Survey; N=25
	Frequency
Cash	2
Senior Pass	2
Youth Pass	11
Other, Specify	9
Total	24

Missing - (1)

R20 Did you have an automobile available to you when you chose to make this trip by bus or train?

Auto Available	24hr Survey; N=25
	Frequency
Yes	8
No	16
Total	24

Missing - (1)